

YILDIZ TEKNİK ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ

Yapı Mal, Bilgi Dilinde İfadesi

YÜKSEK LİSANS TEZİ

Aziz Yenilay

1989

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KÜTÜPHANE DOKÜMANTASYON
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-YILDIZ UNİVERSİTESİ-

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FEN BİLİMLERİ ENSTİTUSU

YAPI MALİYETLERİNİN BİLGİSAYAR

DİLİNDE İFADESİ



YÜKSEK LİSANS TEZİ

INS. MUH. AZİZ YENİAY

İSTANBUL - 1989

OZET

Bu calismada yapilarin statik hesaplarıyla bu sonuclara bagli olarak yapi maliyetlerini hesaplanmasi ile ilgili bir calisma yapilmistir. Amac herhangi bir yapinin insaasina baslanmadan once yapi maliyeti hakkında kesin bir bilgi sunarak mutesebbisi daha gercekci yaklasimla yatirim yapmasini amaclamaktadir.

Bu programa Tubitak Bilimsel Arastirma Kurumunun < Aktarmasiz Birim Fiyat Analizi > kitabi esas alinmistir. Ayni zamanda bu program METRAJ , MALIYET , ANLAZIZ tablolarini da icerdiginden istihkaklarda da kullanilabilir.

Hesaplar iki Ana bolumde incelenmistir.

Birinci Bolum : B.A.K Yapilarinin statik hesaplarini yapan programlar.

Ikinci Bolum : B.A.K Yapilarin metraj ve maliyetleri.

Sonuc Bolumu : Metraj ve Maliyet uygulamalari yapilmistir.

SUMMARY

Here, in this case, first static calculations of the constructions and then due to their results, a study about calculation cost has been made. The aim is to provide certain information about construction costs before starting the construction and, to make the entrepreneur invest by a more rational approach.

In this programme, it has been mainly referred to the TUBITAK's < Aktarmasiz Birim Fiyat Analizi >. At the same time, as the programme involves programme measurements in meters, Cost, Analiz tables, it could be used in meriting.

The Calculations has been examined in two main parts.

1. Part :Do refer to programmes that make the construction's static calculations.
2. Part :Do refer to construction's measurements in metre's and costs.

Final Part:Measurement's and costimple mentations were done.

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10 REM *****
20 REM * BINA MALIYET HESAPLARININ BIR MUHENDISLIK PROBLEMI OLARAK *
30 REM * BILGISAYAR YARDIMI ILE PRATIK COZUMU. *
40 REM * ----- *
50 REM * Programda esas olarak ; *
60 REM * BAYINDIRLIK BAKANLIGI GENEL FIYAT ANALIZLERI yerine, *
70 REM * TUBITAK BILIMSEL ARASTIRMA KURUMU'nun *
80 REM * AKTARMASIZ BIRIM FIYAT ANALIZI Kitabi kullanilmistir. *
90 REM * ----- *
100 REM * Bu Program INS.MUH. AZIZ YENIAY tarafından hazirlanmistir.*
110 REM *****
120 KEY OFF:CLS:I1%=1
130 ' MENU TABLOSU
140 GOSUB 1290
150 LOCATE 3,20:PRINT CHR$(201):LOCATE 3,21:PRINT STRING$(30,205):LOCATE 3,51:PR
INT CHR$(187)
160 FOR SU=4 TO 8:LOCATE SU,20:PRINT CHR$(186):LOCATE SU,51:PRINT CHR$(186):NEXT
SU
170 LOCATE 9,20:PRINT CHR$(200):LOCATE 9,21:PRINT STRING$(30,205):LOCATE 9,51:PR
INT CHR$(188)
180 LOCATE 5,28:PRINT "DOVIZ KURLARI":LOCATE 7,23:PRINT "DM =":LOCATE 7,38:PRIN
T "$ ="
190 LOCATE 7,27:INPUT "", MARK:LOCATE 7,41:INPUT "",DOLAR:GOSUB 490
200 LOCATE 22,1:D$=INKEY$:IF D$=" " THEN 210 ELSE 200
210 CLS
220 LOCATE 1,15:PRINT CHR$(201):LOCATE 1,16:PRINT STRING$(13,205):LOCATE 1,35:CO
LOR 31:PRINT " M E N U ":COLOR 4
230 LOCATE 1,49:PRINT STRING$(13,205):LOCATE 1,62:PRINT CHR$(187)
240 FOR SU2=2 TO 22:LOCATE SU2,15:PRINT CHR$(186):LOCATE SU2,62:PRINT CHR$(186):
NEXT SU2
250 LOCATE 3,17:PRINT CHR$(201):LOCATE 3,18:PRINT STRING$(2,205):LOCATE 3,20:PRI
NT CHR$(187)
260 LOCATE 4,17:PRINT CHR$(186):LOCATE 4,18:PRINT " 1":LOCATE 4,20:PRINT CHR$(18
6)
270 LOCATE 5,17:PRINT CHR$(200):LOCATE 5,18:PRINT STRING$(2,205):LOCATE 5,20:PRI
NT CHR$(188)
280 LOCATE 4,22:PRINT "ANALIZ HESABI TABLOSU"
290 LOCATE 7,17:PRINT CHR$(201):LOCATE 7,18:PRINT STRING$(2,205):LOCATE 7,20:PRI
NT CHR$(187)
300 LOCATE 8,17:PRINT CHR$(186):LOCATE 8,18:PRINT " 2":LOCATE 8,20:PRINT CHR$(18
6)
310 LOCATE 9,17:PRINT CHR$(200):LOCATE 9,18:PRINT STRING$(2,205):LOCATE 9,20:PRI
NT CHR$(188)
320 LOCATE 8,22:PRINT "METRAJ GIRDILERI TABLOSU"
330 LOCATE 23,15:PRINT CHR$(200):LOCATE 23,16:PRINT STRING$(46,205):LOCATE 23,62
:PRINT CHR$(188)
340 LOCATE 11,17:PRINT CHR$(201):LOCATE 11,18:PRINT STRING$(2,205):LOCATE 11,20:
PRINT CHR$(187)
350 LOCATE 12,17:PRINT CHR$(186):LOCATE 12,18:PRINT " 3":LOCATE 12,20:PRINT CHR$
(186)
360 LOCATE 13,17:PRINT CHR$(200):LOCATE 13,18:PRINT STRING$(2,205):LOCATE 13,20:
PRINT CHR$(188)
370 LOCATE 12,22:PRINT "MALIYET HESABI TABLOSU"
380 LOCATE 15,17:PRINT CHR$(201):LOCATE 15,18:PRINT STRING$(2,205):LOCATE 15,20:
PRINT CHR$(187)
390 LOCATE 16,17:PRINT CHR$(186):LOCATE 16,18:PRINT " 4":LOCATE 16,20:PRINT CHR$
(186)

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400 LOCATE 17,17:PRINT CHR$(200):LOCATE 17,18:PRINT STRING$(2,205):LOCATE 17,20:
PRINT CHR$(188)
410 LOCATE 16,22:PRINT "P R I N T"
420 LOCATE 19,17:PRINT CHR$(201):LOCATE 19,18:PRINT STRING$(2,205):LOCATE 19,20:
PRINT CHR$(187)
430 LOCATE 20,17:PRINT CHR$(186):LOCATE 20,18:PRINT " 5":LOCATE 20,20:PRINT CHR$(
186)
440 LOCATE 21,17:PRINT CHR$(200):LOCATE 21,18:PRINT STRING$(2,205):LOCATE 21,20:
PRINT CHR$(188)
450 LOCATE 20,22:PRINT "C I K I S"
460 LOCATE 23,22:PRINT "SECIMINIZ ":LOCATE 23,32:A#=INKEY$
470 ON VAL(A$) GOTO 1150,550,960,1270,1280
480 GOTO 460
490 LOCATE 12,20:PRINT CHR$(201):LOCATE 12,21:PRINT STRING$(30,205):LOCATE 12,51
:PRINT CHR$(187)
500 FOR SU=13 TO 16:LOCATE SU,20:PRINT CHR$(186):LOCATE SU,51:PRINT CHR$(186):NE
XT SU
510 LOCATE 16,20:PRINT CHR$(200):LOCATE 16,21:PRINT STRING$(30,205):LOCATE 16,51
:PRINT CHR$(188)
520 LOCATE 14,25:PRINT "KAR ORANI (%) ":LOCATE 14,40:INPUT "",KAR
530 RETURN
540 I%=1:REM METRAJ HESABI BOLUMU
550 GOSUB 1430:GOSUB 820:LOCATE 3,12:PRINT I%
560 LOCATE 3,62:PRINT PO$:LOCATE 3,62:INPUT "",POZNO$:PO=VAL(POZNO$):P=LEN(POZNO
$):IF P>9 THEN PO$="" ":GOTO 560
570 GOSUB 900
580 LOCATE 5,37:INPUT "",YAP$
590 LOCATE 6,2:INPUT "",YAP1$
600 LOCATE 7,2:INPUT "",YAP2$
610 LOCATE 8,2:INPUT "",YAP3$
620 LOCATE 9,3:PRINT YAP$ " " "ADEDI ":LOCATE 9,17:INPUT " ",D
630 TOP=0
640 FOR W=1 TO D
650 LOCATE 13,27:INPUT "",EN$:E=VAL(EN$):IF E>100 THEN 650
660 LOCATE 14,27:INPUT "",BOY$:B=VAL(BOY$):IF B>100 THEN 660
670 LOCATE 15,27:INPUT "",YUK$:Y=VAL(YUK$):IF Y>100 THEN 670
680 LOCATE 16,27:INPUT "",BIR$
690 LOCATE 18,27:BMIK=E*B*Y:PRINT BMIK:LOCATE 20,27:INPUT "",BAD:TOPLAM=BMIK*BAD
:LOCATE 22,27:PRINT TOPLAM
700 TOP=TOP+TOPLAM
710 NEXT W
720 LOCATE 22,40:PRINT YAP$ " ""BETON"" ""TOPLAMI : "TOP" ""m^3"
730 LOCATE 23,5:PRINT " YAZDIKLARINIZ DOGRUMU ? <E/H> ":LOCATE 23,37:INPUT "",
C$:IF C$="e" OR C$="E" THEN 740 ELSE 810
740 LSET POZ$=POZNO$:LSET YIAD$=YAP$:LSET YIAD1$=YAP1$:LSET YIAD2$=YAP2$:LSET YI
AD3$=YAP3$
750 LSET YIAD4$=YAP4$:LSET YIAD5$=YAP5$:LSET SAY$=MKI$(I%)
760 PUT #1,I%
770 LSET ENI$=MKI$(EN%):LSET BYU$=MKI$(BOY%):LSET YSK$=MKI$(YUK%)
780 LSET BRM$=BIR$:LSET BHM$=MKD$(BMIK#):LSET BNA$=MKI$(BAD#):LSET TOPMIK$=MKD$(
TOPLAM#)
790 PUT #2,I%:PUT #3,1
800 LOCATE 23,5:PRINT "PRINTER'E YAZDIRACAK MISINIZ ? <E/H> ":LOCATE 23,42:INPUT
"",YAZ$:IF YAZ$="E" OR YAZ$="e" THEN GOSUB 2100 ELSE 81

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0
810 LOCATE 23,5:PRINT " KAYITA DEVAM EDECEKMISINIZ ? <E/H> ":LOCATE 23,41:INPUT
   "",CE$:IF CE$="e" OR CE$="E" THEN 550 ELSE 210
820 GET #3,1
830 I%=CVI(SAY$)
840 I%=I%+1
850 RETURN
860 GET #4,1
870 I1%=CVI(SAY1$)
880 I1%=I1%+1
890 RETURN
900 FOR K%=1 TO I%
910 GET #2,K%
920 IF POZNO$=POZ$ THEN 930 ELSE 940
930 LOCATE 5,37:PRINT YAP$:LOCATE 6,2:PRINT YAP1$:LOCATE 7,2:PRINT YAP2$:LOCATE
8,2:PRINT YAP3$:LOCATE 9,2:PRINT YAP4$:LOCATE 10,2:PRINT
   YAP5$:NEXT K%
940 RETURN
950 REM MALIYET HESABI BOLUMU
960 GOSUB 1690:GOSUB 820:LOCATE 3,12:PRINT I%
970 LOCATE 3,62:PRINT PO$:LOCATE 3,62:INPUT "",POZNO$:P=LEN(POZNO$):IF P>9 THEN
PO$=""      ":GOTO 970
980 GOSUB 900
990 LOCATE 5,37:INPUT "",YAP$
1000 LOCATE 6,2:INPUT "",YAP1$
1010 LOCATE 7,2:INPUT "",YAP2$
1020 LOCATE 8,2:INPUT "",YAP3$
1030 LOCATE 9,2:INPUT "",YAP4$
1040 LOCATE 10,2:INPUT "",YAP5$
1050 LOCATE 13,27:INPUT "",BMIK:LOCATE 14,27:INPUT "",BAD:TOPLAM=BMIK*BAD:LOCATE
15,27:PRINT TOPLAM:LOCATE 16,27:INPUT "",BIR$
1060 LOCATE 18,27:INPUT "",BIRFIY:BTUT=BMIK*BIRFIY:LOCATE 20,27:PRINT USING "###
,###,###,###.##":BTUT
1070 TOPMAL=TOPLAM*BIRFIY:LOCATE 22,27:PRINT USING "###,###,###,###.##":TOPMAL
1080 LOCATE 23,5:PRINT " YAZDIKLARINIZ DOGRUMU ? <E/H> ":LOCATE 23,37:INPUT "",
C$:IF C$="e" OR C$="E" THEN 1090 ELSE 1140
1090 LSET POZ$=POZNO$:LSET YIAD$=YAP$:LSET YIAD1$=YAP1$:LSET YIAD2$=YAP2$:LSET Y
IAD3$=YAP3$:I1%=I%
1100 LSET YIAD4$=YAP4$:LSET YIAD5$=YAP5$:LSET SAY1$=MKI$(I1%)
1110 LSET BFIY$=MKD$(BIRFIY#):LSET BHM$=MKD$(BMIK#):LSET BNA$=MKI$(BAD#):LSET TO
PMIK$=MKD$(TOPLAM#):LSET BRM$=BIR$:LSET BETUT$=MKD$(BTUT
#):LSET TMAL$=MKD$(TOPMAL#)
1120 PUT #5,I%:PUT #4,1
1130 LOCATE 23,5:PRINT "PRINTER'E YAZDIRACAK MISINIZ ? <E/H> ":LOCATE 23,42:INPU
T "",YAZ$:IF YAZ$="e" OR YAZ$="E" THEN GOSUB 2100 ELSE 1
140
1140 LOCATE 23,5:PRINT " KAYITA DEVAM EDECEKMISINIZ ? <E/H> ":LOCATE 23,41:INPUT
   "",CE$:IF CE$="e" OR CE$="E" THEN I1%=I1%+1:GOTO 960 EL
SE 210
1150 GOSUB 1930:LOCATE 8,70:PRINT MARK:LOCATE 12,69:PRINT DOLAR
1160 LOCATE 2,13:PRINT PO$:LOCATE 2,13:INPUT "",POZNO$:PO=VAL(POZNO$):P=LEN(POZN
O$):IF P>9 THEN PO$=""      ":GOTO 1160
1170 LOCATE 2,65:INPUT "",SAYFANO:SIL$=""
   "
1180 LOCATE 4,15:INPUT "",IAD$:W=8
1190 LOCATE W,4:INPUT "",PZ$:LOCATE W,14:INPUT "",MIK:LOCATE W,26:INPUT "",RAYIC

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:TUT=RAYIC*MIK:LOCATE W,36:PRINT TUT:IF W>8 THEN 1210 EL
SE 1200
1200 KARF=TUT:KRL=KARF*KAR/100:KARL=KARF+KRL:MAR=KARL/MARK:DOL=KARL/DOLAR:GOTO 1
220
1210 TUT1=MIK*RAYIC:KARF=KARF+TUT1:KRL=KARF*KAR/100:KARL=KARF+KRL:MAR=KARL/MARK:
DOL=KARL/DOLAR
1220 LOCATE 23,5:PRINT "YAZDIKLARINIZ DOGRUMU ? <E/H>":LOCATE 23,35:INPUT "",YZ#
1230 IF YZ#="E" OR YZ#="e" THEN W=W+1:LOCATE 8,46:PRINT USING "#####.##";KARF:L
OCATE 8,56:PRINT USING "#####.##";KARL:LOCATE 10,70:PR
INT USING "#####.##";MAR:LOCATE 14,69:PRINT USING "#####.##";DOL:GOTO 1240 ELSE
1190
1240 LOCATE 23,5:PRINT SIL#:LOCATE 23,5:PRINT "GIRISLER BITTI MI ? <E/H> ":LOCAT
E 23,31:INPUT BIT#:IF BIT#="E" OR BIT#="e" THEN 1260 ELS
E LOCATE 23,5:PRINT SIL#:GOTO 1190
1250 LOCATE 23,5:PRINT SIL#:LOCATE 23,5:PRINT "KAYITA DEVAM EDECEK MISINIZ ? <E/
H> ":LOCATE 23,42:INPUT DE#:IF DE#="E" OR DE#="e" THEN W
=8:GOTO 1150 ELSE 210
1260 LOCATE 23,5:PRINT SIL#:LOCATE 23,5:PRINT "PRINTER'E YAZILACAK MI ? <E/H> ":
LOCATE 23,36:INPUT "",PY#:IF PY#="E" OR PY#="e" THEN GOS
UB 2060 ELSE 1250
1270 CLS:GOTO 210
1280 CLS:LOCATE 15,10:PRINT "PROGRAM SONA ERDI":RESET:END
1290 ' DOSYALARIN ACILMASI
1300 OPEN "R",#1,"METRAJ.KEY",453
1310 FIELD #1,4 AS SAY$,9 AS POZ$,42 AS YIAD$,78 AS YIAD1$,78 AS YIAD2$,78 AS YI
AD3$,78 AS YIAD4$,78 AS YIAD5$,8 AS SAYFA#
1320 OPEN "R",#2,"METRAJ.DAT",499
1330 FIELD #2,4 AS SAY$,9 AS POZ$,42 AS YIAD$,78 AS YIAD1$,78 AS YIAD2$,78 AS YI
AD3$,78 AS YIAD4$,78 AS YIAD5$,8 AS SAYFA$,7 AS ENI$,7 A
S BYU$,7 AS YSK#
1340 FIELD #2,4 AS BRM$,7 AS BHM$,3 AS BNA$,11 AS TOPMIK#
1350 OPEN "R",#3,"SIRA.KEY",4
1360 FIELD #3,4 AS SAY#
1370 OPEN "R",#4,"SIRA1.KEY",4
1380 FIELD #4,4 AS SAY1#
1390 OPEN "R",#5,"MALIYET.DAT",503
1400 FIELD #5,4 AS SAY1$,9 AS POZ$,42 AS YIAD$,78 AS YIAD1$,78 AS YIAD2$,78 AS Y
IAD3$,78 AS YIAD4$,78 AS YIAD5$,7 AS BFIY$,7 AS BHM$,3 A
S BNA$,11 AS TOPMIK#
1410 FIELD #5,4 AS BRM$,11 AS BETUT$,15 AS TMAL#
1420 RETURN
1430 REM METRAJ GIRDILERI TABLOSUNUN CIZIMI
1440 CLS
1450 PRINT CHR$(201);STRING$(26,205);:COLOR 9:PRINT " M E T R A J   G I R I S I "
;:COLOR 7:PRINT STRING$(26,205);CHR$(187)
1460 PRINT CHR$(204);STRING$(78,205);CHR$(185)
1470 PRINT CHR$(186);" SIRA NO :":LOCATE 3,53:PRINT " POZ.NO :":LOCATE 3,80:PRIN
T CHR$(186)
1480 PRINT CHR$(204);STRING$(78,205);CHR$(185)
1490 PRINT CHR$(186);" YAPILACAK ISIN ADI,CINSI ve YERI :":LOCATE 5,80:PRINT CH
R$(186)
1500 PRINT CHR$(186);:LOCATE 6,80:PRINT CHR$(186)
1510 PRINT CHR$(186);:LOCATE 7,80:PRINT CHR$(186)
1520 PRINT CHR$(186);:LOCATE 8,80:PRINT CHR$(186)
1530 PRINT CHR$(186);:LOCATE 9,80:PRINT CHR$(186)
1540 PRINT CHR$(186);:LOCATE 10,80:PRINT CHR$(186)

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1550 PRINT CHR$(204);STRING$(78,205);CHR$(185)
1560 PRINT CHR$(204);STRING$(26,205);" M E T R A J   H E S A B I ";STRING$(26,205);CHR$(185)
1570 PRINT CHR$(186);" ENI.....";:LOCATE 13,80:PRINT CHR$(186)
1580 PRINT CHR$(186);" BOYU.....";:LOCATE 14,80:PRINT CHR$(186)
1590 PRINT CHR$(186);" YUKSEKLIGI.....";:LOCATE 15,80:PRINT CHR$(186)
1600 PRINT CHR$(186);" BIRIMI.....";:LOCATE 16,80:PRINT CHR$(186)
1610 PRINT CHR$(186);" -----";:LOCATE 17,80:PRINT CHR$(186)
1620 PRINT CHR$(186);" BEHER MIKTARI.....";:LOCATE 18,80:PRINT CHR$(186)
1630 PRINT CHR$(186);" -----";:LOCATE 19,80:PRINT CHR$(186)
1640 PRINT CHR$(186);" BENZER ADEDI.....";:LOCATE 20,80:PRINT CHR$(186)
1650 PRINT CHR$(186);" -----";:LOCATE 21,80:PRINT CHR$(186)
1660 PRINT CHR$(186);" TOPLAM MIKTARI.....";:LOCATE 22,80:PRINT CHR$(186)
1670 PRINT CHR$(200);STRING$(78,205);CHR$(188):RETURN
1680 REM METRAJ GIRDILERI TABLOSUNUN CIZIMI
1690 CLS
1700 PRINT CHR$(201);STRING$(24,205);:COLOR 9:PRINT " M A L I Y E T   T A B L O S U ";:COLOR 7:PRINT STRING$(24,205);CHR$(187)
1710 PRINT CHR$(204);STRING$(78,205);CHR$(185)
1720 PRINT CHR$(186);" SIRA NO :":LOCATE 3,53:PRINT " POZ.NO :":LOCATE 3,80:PRINT CHR$(186)
1730 PRINT CHR$(204);STRING$(78,205);CHR$(185)
1740 PRINT CHR$(186);" YAPILACAK ISIN ADI,CINSI ve YERI :":LOCATE 5,80:PRINT CHR$(186)
1750 PRINT CHR$(186);:LOCATE 6,80:PRINT CHR$(186)
1760 PRINT CHR$(186);:LOCATE 7,80:PRINT CHR$(186)
1770 PRINT CHR$(186);:LOCATE 8,80:PRINT CHR$(186)
1780 PRINT CHR$(186);:LOCATE 9,80:PRINT CHR$(186)
1790 PRINT CHR$(186);:LOCATE 10,80:PRINT CHR$(186)
1800 PRINT CHR$(204);STRING$(78,205);CHR$(185)
1810 PRINT CHR$(204);STRING$(25,205);" M A L I Y E T   H E S A B I ";STRING$(25,205);CHR$(185)
1820 PRINT CHR$(186);" BEHER MIKTARI.....";:LOCATE 13,80:PRINT CHR$(186)
1830 PRINT CHR$(186);" BENZER ADEDI.....";:LOCATE 14,80:PRINT CHR$(186)
1840 PRINT CHR$(186);" TOPLAM MIKTARI.....";:LOCATE 15,80:PRINT CHR$(186)
1850 PRINT CHR$(186);" BIRIMI.....";:LOCATE 16,80:PRINT CHR$(186)
1860 PRINT CHR$(186);" -----";:LOCATE 17,80:PRINT CHR$(186)
1870 PRINT CHR$(186);" BIRIM FIYATI.....";:LOCATE 18,80:PRINT CHR$(186)
1880 PRINT CHR$(186);" -----";:LOCATE 19,80:PRINT CHR$(186)
1890 PRINT CHR$(186);" BEHER TUTARI.....";:LOCATE 20,80:PRINT CHR$(186)
1900 PRINT CHR$(186);" -----";:LOCATE 21,80:PRINT CHR$(186)
1910 PRINT CHR$(186);" TOPLAM MALIYET.....";:LOCATE 22,80:PRINT CHR$(186)
1920 PRINT CHR$(200);STRING$(78,205);CHR$(188):RETURN
1930 CLS:LOCATE 1,3:PRINT CHR$(201):LOCATE 1,4:PRINT STRING$(25,205):LOCATE 1,25:PRINT " A N A L I Z   T A L O S U ";:LOCATE 1,53:PRINT STRING$(25,205):LOCATE 1,78:PRINT CHR$(187)
1940 FOR SU3=2 TO 21:LOCATE SU3,3:PRINT CHR$(186):LOCATE SU3,78:PRINT CHR$(186):NEXT SU3:LOCATE 3,3:PRINT CHR$(204):LOCATE 3,4:PRINT STRING$(74,205):LOCATE 3,78:PRINT CHR$(185)
1950 LOCATE 5,3:PRINT CHR$(204):LOCATE 5,4:PRINT STRING$(74,205):LOCATE 5,78:PRINT CHR$(185):LOCATE 7,3:PRINT CHR$(204):LOCATE 7,4:PRINT STRING$(74,205):LOCATE 7,78:PRINT CHR$(185)
1960 FOR SU4=6 TO 21:LOCATE SU4,13:PRINT CHR$(186):LOCATE SU4,25:PRINT CHR$(186):LOCATE SU4,35:PRINT CHR$(186):LOCATE SU4,45:PRINT CHR$(186):LOCATE SU4,55:PRINT CHR$(186):LOCATE SU4,66:PRINT CHR$(186):NEXT SU4

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1970 LOCATE 5,13:PRINT CHR$(203):LOCATE 5,25:PRINT CHR$(203):LOCATE 5,35:PRINT C
HR$(203):LOCATE 5,45:PRINT CHR$(203):LOCATE 5,55:PRINT C
HR$(203):LOCATE 5,66:PRINT CHR$(203)
1980 LOCATE 7,13:PRINT CHR$(206):LOCATE 7,25:PRINT CHR$(206):LOCATE 7,35:PRINT C
HR$(206):LOCATE 7,45:PRINT CHR$(206):LOCATE 7,55:PRINT C
HR$(206):LOCATE 7,66:PRINT CHR$(206)
1990 LOCATE 21,3:PRINT CHR$(200):LOCATE 21,4 :PRINT STRING$(74,205):LOCATE 21,78
:PRINT CHR$(188)
2000 LOCATE 21,13:PRINT CHR$(202):LOCATE 21,25:PRINT CHR$(202):LOCATE 21,35:PRIN
T CHR$(202):LOCATE 21,45:PRINT CHR$(202):LOCATE 21,55:PR
INT CHR$(202):LOCATE 21,66:PRINT CHR$(202)
2010 LOCATE 6,5:PRINT "POZ.NO":LOCATE 6,15:PRINT "MIKTAR":LOCATE 6,28:PRINT "RAY
IC":LOCATE 6,38:PRINT "TUTARI":LOCATE 6,46:PRINT "KARSIZ
F.":LOCATE 6,56:PRINT "KARLI FIAT":LOCATE 6,67:PRINT "TOPLAM FIAT"
2020 LOCATE 2,5:PRINT "POZ NO :":LOCATE 2,55:PRINT "SAYFA NO :":LOCATE 4,5:PRINT
"ISIN ADI : "
2030 LOCATE 8,67:PRINT "DM=":LOCATE 10,67:PRINT "DM":LOCATE 11,66:PRINT CHR$(204
):LOCATE 11,67:PRINT STRING$(11,205):LOCATE 11,78:PRINT
CHR$(185)
2040 LOCATE 12,67:PRINT "#=":LOCATE 14,67:PRINT "#":LOCATE 15,66:PRINT CHR$(204)
:LOCATE 15,67:PRINT STRING$(11,205):LOCATE 15,78:PRINT
CHR$(185)
2050 RETURN
2060 LOCATE 23,5:PRINT SIL$:LOCATE 23,5:PRINT "YAZDIRMAK ICIN 'SHIFT-PRTSC' TUSL
ARINA BASIN":FOR BEKLE=1 TO 3000:NEXT BEKLE:LOCATE 23,5:
PRINT SIL$
2070 LOCATE 23,5:PRINT SIL$:LOCATE 23,1:INPUT "",DEV$
2080 LPRINT TAB(20);"BIRIM FIYATI (TL/M3) ";TAB(43);KARL;TAB(55);".- TL"
2090 RETURN
2100 LOCATE 23,5:PRINT "YAZDIRMAK ICIN 'SHIFT-PRTSC' TUSLARINA BASIN":FOR BEKLE=
1 TO 3000:NEXT BEKLE:LOCATE 23,2:PRINT STRING$(78,205)
2110 LOCATE 23,5:PRINT SIL$:LOCATE 23,1:INPUT "",DEV$
2120 RETURN

```

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3000 WIDTH LPRINT 136
3010 REM DOSEME HESAPLARI
3020 DEF FNA(A,B,C,D,E,F,G,H)=.5/(G*E+H*F)*((B-A)/(C*E+D*F)+(G*E+H*F)*(C*E+D*F)/
2)^2+A
3030 DEF FNZ(U,V)=(U+V^4)/(U*V^4+1)
3040 DEF FNB$(A$,C$)=LEFT$(A$,LEN(C$))
3050 DEF FNK$(A$,B$)=MID$(A$,LEN(B$)+1,LEN(A$))
3060 DATA 1,.4,2.5,.2,5,1,.5,2,1
3070 FOR B%=1 TO 9:READ A(2,B%):NEXT B%
3080 DATA 1,2.5,.4,5,.2,1,2,.5,1
3090 FOR C%=1 TO 9:READ A(3,C%):NEXT C%
3100 DATA 1,.5625,1,.3333333,1,.5625,.3333333,.5625,.3333333
3110 FOR D%=1 TO 9:READ A(4,D%):NEXT D%
3120 DATA 1,1,.5625,1,.3333333,.5625,.3333333,.3333333
3130 FOR E%=1 TO 9:READ A(5,E%):NEXT E%
3140 DATA .5,.5,.5,1,1,.5,1,1,1
3150 FOR F%=1 TO 9:READ A(6,F%):NEXT F%
3160 DATA .5,.5,.5,0,0,.5,0,0,0
3170 CLS:LOCATE 3,20:PRINT"***** DOSEME HESABI *****":AS$="" ":R%=22:GOSU
B 5990
3180 IF I$="E" THEN 3200
3190 IF I$="H" THEN 3210
3200 CLS:GOSUB 5360
3210 CLS:INPUT "DOSEME TIP SAYISI=",AC%:CLS
3220 DIM B(5,AC%),C(2,AC%),D(8,AC%),E(2,AC%),D$(AC%),J$(AC%)
3230 GOSUB 5380
3240 AS$=" DOSEMELER DOSYADA YAZILI MI ? (E/H) ":R%=18:GOSUB 5990:QW$=I$
3250 IF I$="H" THEN 3290 ELSE OPEN "I",#1,"DOS"
3260 FOR TT%=1 TO AC%:INPUT#1,FV$,TP%,B(1,TT%),B(2,TT%),B(3,TT%),B(4,TT%),B(5,TT
%)
3270 J$(TT%)=FV$:TX=TT%
3280 V$=FV$+STR$(TX):D$(TX)=V$:GOTO 3420
3290 OPEN "O",#1,"DOS":FOR TX=1 TO AC%:CLS
3300 LOCATE 1,28:INPUT "DOSEME No:D",FV$
3310 J$(TX)=FV$
3320 V$=FV$+STR$(TX):D$(TX)=V$
3330 LOCATE 3,26:INPUT "Tip =",TP%
3340 LOCATE 4,26:INPUT "Lx(m) =",B(1,TX)
3350 LOCATE 5,26:INPUT "Ly(m) =",B(2,TX)
3360 LOCATE 6,26:INPUT "d(cm) =",B(3,TX)
3370 LOCATE 7,25:INPUT "g(t/m^2)=",B(4,TX)
3380 LOCATE 8,25:INPUT "p(t/m^2)=",B(5,TX)
3390 AS$=" VERILERDE YANLIS VAR MI ? (E/H) ":R%=20:GOSUB 5990
3400 IF I$="E" THEN 3300
3410 IF I$="H" THEN WRITE#1,FV$,TP%,B(1,TX),B(2,TX),B(3,TX),B(4,TX),B(5,TX)
3420 D(1,TX)=B(4,TX)+B(5,TX):LOCATE 9,25:IF QW$="H" THEN PRINT USING "q(t/m^2)=#
#.###";D(1,TX)
3430 C(1,TX)=B(2,TX)/B(1,TX):LOCATE 11,29:IF QW$="H" THEN PRINT USING "Eps.=#.##
#";C(1,TX)
3440 IF C(1,TX) >=.5 AND C(1,TX) <=2 THEN 3480
3450 IF C(1,TX) <.5 THEN 3470
3460 D(2,TX)=0:C(2,TX)=1:GOTO 3500
3470 D(2,TX)=1:C(2,TX)=0:GOTO 3500
3480 C(2,TX)=C(1,TX)^4/(A(1,TP%)+C(1,TX)^4)
3490 D(2,TX)=1/(1+A(2,TP%)*C(1,TX)^4)
3500 LOCATE 12,29:IF QW$="H" THEN PRINT USING "Kapa=#.###";C(2,TX)

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3510 LOCATE 13,29:IF QW$="H" THEN PRINT USING "Ro =#.###";D(2,T%)
3520 D(3,T%)=C(2,T%)*B(4,T%):LOCATE 16,21:IF QW$="H" THEN PRINT USING "gx(t/m^2)
=#.##";D(3,T%)
3530 D(4,T%)=D(2,T%)*B(4,T%):LOCATE 16,38:IF QW$="H" THEN PRINT USING "gy(t/m^2)
=#.##";D(4,T%)
3540 D(5,T%)=C(2,T%)*B(5,T%):LOCATE 17,21:IF QW$="H" THEN PRINT USING "px(t/m^2)
=#.##";D(5,T%)
3550 D(6,T%)=D(2,T%)*B(5,T%):LOCATE 17,38:IF QW$="H" THEN PRINT USING "py(t/m^2)
=#.##";D(6,T%)
3560 D(7,T%)=C(2,T%)*D(1,T%):LOCATE 18,21:IF QW$="H" THEN PRINT USING "qx(t/m^2)
=#.##";D(7,T%)
3570 D(8,T%)=D(2,T%)*D(1,T%):LOCATE 18,38:IF QW$="H" THEN PRINT USING "qy(t/m^2)
=#.##";D(8,T%)
3580 IF TP%=3 OR TP%=5 OR TP%=8 THEN 3610
3590 Z=1
3600 GOTO 3620
3610 Z=FNZ(A(1,TP%),C(1,T%))
3620 E(1,T%)=(1-(5*C(2,T%)*A(3,TP%)*Z)/(6*C(1,T%)^2))*A(5,TP%)+A(6,TP%):LOCATE 1
9,21:IF QW$="H" THEN PRINT USING "nx =#.##";E(1,T%)
)
3630 E(2,T%)=(1-(5*D(2,T%)*A(4,TP%)*Z*C(1,T%)^2)/6)*A(5,TP%)+A(6,TP%):LOCATE 19,
38:IF QW$="H" THEN PRINT USING "ny =#.##";E(2,T%)
3640 GOSUB 5440:IF QW$="E" THEN 3660
3650 NEXT T%:GOTO 3670
3660 NEXT TT%
3670 CLOSE:CLS:INPUT "ACIKLIK SAYISI=",AS%:CLS:IF AS%=1 THEN 3710
3680 DIM F(AS%-1,AS%-1),G(AS%+1,AS%-1),X(AS%),L(AS%-1,AS%-1)
3690 DIM I(3,AS%),K(AS%-1,AS%-1),Q(2*AS%)
3700 DIM M(AS%-1),N(2,AS%-1),T(AS%-1)
3710 DIM U(AS%),R(AS%),P(2,AS%+2)
3720 FOR N%=1 TO AS%
3730 LOCATE 23,20:INPUT "DOSEME No: D",P$
3740 FOR W%=1 TO AC%:IF FNB$(D$(W%),P$)=P$ THEN 3760
3750 NEXT W%:W%=W%-1
3760 R(N%)=VAL(FNK$(D$(W%),P$))
3770 LOCATE N%,20:PRINT "D";P$;" ";CHR$(177);"&";CHR$(177);
3780 NEXT N%:AS$=" VERILERDE YANLIS VAR MI ? (E/H) ":R%=25:GOSUB 5990
3790 IF I$="H" THEN 3810
3800 IF I$="E" THEN 3730
3810 AS$=" HESAP YONU ? (X/Y) ":R%=22:GOSUB 5990:IF I$="X" THEN 3870
3820 IF I$="Y" THEN 3830
3830 H$="Y-Y"
3840 YK%=1:XK%=0
3850 Z$="Y":Y$="y"
3860 GOTO 3890
3870 H$="X-X":XK%=1:YK%=0
3880 Z$="X":Y$="x"
3890 LOCATE 20,25:PRINT H$;" YONU":IF AS%=1 THEN 5020
3900 FOR S%=1 TO AS%
3910 I(1,S%)=(D(3,R(S%))*XK%+D(4,R(S%))*YK%)*(B(1,R(S%))*XK%+B(2,R(S%))*YK%)^2/4
3920 I(2,S%)=(D(7,R(S%))*XK%+D(8,R(S%))*YK%)*(B(1,R(S%))*XK%+B(2,R(S%))*YK%)^2/4
3930 I(3,S%)=100*(B(1,R(S%))*XK%+B(2,R(S%))*YK%)/(B(3,R(S%))^3)
3940 NEXT S%
3950 FOR A%=1 TO AS%-1
3960 F(A%,A%)=2*(I(3,A%)+I(3,A%+1)):NEXT A%

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3970 FOR K%=1 TO AS%-2
3980 F(K%+1,K%)=I(3,K%+1)
3990 F(K%,K%+1)=I(3,K%+1)
4000 NEXT K%
4010 IF AS%=2 THEN 4190
4020 IF AS%=3 THEN 4100
4030 FOR J%=1 TO AS%-3
4040 FOR C%=J%+2 TO AS%-1 STEP 2
4050 G(J%,C%)=-I(1,C%)*I(3,C%)-I(2,C%+1)*I(3,C%+1)
4060 NEXT C%
4070 NEXT J%
4080 FOR K%=AS%-1 TO 1 STEP -1:FOR D%=K%-2 TO 1 STEP -2
4090 G(K%,D%)=-I(3,D%)*I(2,D%)-I(3,D%+1)*I(1,D%+1):NEXT D%:NEXT K%
4100 FOR I%=AS%-1 TO 1 STEP -1
4110 FOR B%=I%-1 TO 1 STEP -2
4120 G(I%,B%)=-I(3,B%)*I(1,B%)-I(3,B%+1)*I(2,B%+1)
4130 NEXT B%
4140 NEXT I%
4150 FOR L%=1 TO AS%-2:FOR A%=L%+1 TO AS%-1 STEP 2
4160 G(L%,A%)=-I(3,A%)*I(2,A%)-I(1,A%+1)*I(3,A%+1)
4170 NEXT A%
4180 NEXT L%
4190 FOR M%=1 TO AS%-1:G(M%,M%)=-I(2,M%)*I(3,M%)-I(2,M%+1)*I(3,M%+1)
4200 NEXT M%
4210 FOR Z%=1 TO AS%-1 STEP 2
4220 G(AS%+1,Z%)=-I(3,Z%)*I(1,Z%)-I(3,Z%+1)*I(2,Z%+1)
4230 G(AS%,Z%)=-I(3,Z%)*I(2,Z%)-I(3,Z%+1)*I(1,Z%+1)
4240 NEXT Z%
4250 FOR W%=2 TO AS%-1 STEP 2
4260 G(AS%+1,W%)=-I(3,W%)*I(2,W%)-I(3,W%+1)*I(1,W%+1)
4270 G(AS%,W%)=-I(3,W%)*I(1,W%)-I(3,W%+1)*I(2,W%+1)
4280 NEXT W%
4290 IF AS%<>2 THEN 4310
4300 X(1)=G(1,1)/F(1,1):GOTO 4590
4310 FOR D%=1 TO AS%-1
4320 FOR E%=1 TO AS%-1
4330 K(D%,E%)=F(D%,E%)
4340 NEXT E%
4350 NEXT D%:S1=5000:DET=1
4360 IF AS%=3 THEN S1=5080
4370 IF S1=5000 THEN GOSUB 5180 ELSE GOSUB 5340
4380 DT=DET
4390 FOR Z%=1 TO AS%-1:FOR A%=1 TO AS%-1:FOR B%=1 TO AS%-1
4400 K(A%,B%)=F(A%,B%):NEXT B%:NEXT A%
4410 FOR N%=1 TO AS%-1:K(N%,Z%)=G(Z%,N%):NEXT N%
4420 DET=1:IF S1=5000 THEN GOSUB 5180 ELSE GOSUB 5340
4430 M(Z%)=DET:NEXT Z%
4440 FOR U%=AS% TO AS%+1
4450 FOR V%=1 TO AS%-1:FOR G%=1 TO AS%-1
4460 FOR Q%=1 TO AS%-1
4470 K(G%,Q%)=F(G%,Q%):NEXT Q%:NEXT G%:FOR Y%=1 TO AS%-1
4480 K(Y%,V%)=G(U%,Y%):NEXT Y%:DET=1
4490 IF S1=5000 THEN GOSUB 5180 ELSE GOSUB 5340
4500 N(U%-AS%+1,V%)=DET

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4510 NEXT V%
4520 NEXT U%
4530 IF AS%=2 THEN 4590
4540 FOR K%=1 TO AS%-1
4550 X(K%)=M(K%)/DT:NEXT K%
4560 FOR A%=1 TO AS%-1
4570 P(1,A%)=N(1,A%)/DT
4580 P(2,A%)=N(2,A%)/DT:NEXT A%:GOTO 4600
4590 P(1,1)=G(2,1)/F(1,1):P(2,1)=G(3,1)/F(1,1):GOTO 4650
4600 U%=3
4610 FOR I%=3 TO 2*AS%-2 STEP 2
4620 Q(I%)=FNQ(D(7,R(U%-1)),XK%,D(8,R(U%-1)),YK%,B(1,R(U%-1)),B(2,R(U%-1)),X(U%-1),X(U%-2))
4630 Q(I%+1)=(D(7,R(U%-1))*XK%+D(8,R(U%-1))*YK%)*(B(1,R(U%-1))*XK%+B(2,R(U%-1))*YK%)-Q(I%)
4640 U%=U%+1:NEXT I%:CLS
4650 Q(1)=FNQ(D(7,R(1)),XK%,D(8,R(1)),YK%,B(1,R(1)),B(2,R(1)),0,X(2))
4660 Q(2)=(D(7,R(1))*XK%+D(8,R(1))*YK%)*(B(1,R(1))*XK%+B(2,R(1))*YK%)-Q(1)
4670 Q(2*AS%-1)=FNQ(D(7,R(AS%)),XK%,D(8,R(AS%)),YK%,B(1,R(AS%)),B(2,R(AS%)),X(AS%-1),0)
4680 Q(2*AS%)=(D(7,R(AS%))*XK%+D(8,R(AS%))*YK%)*(B(1,R(AS%))*XK%+B(2,R(AS%))*YK%)-Q(2*AS%-1)
4690 DZ%=1:IF AS%=1 THEN 5020 ELSE LPRINT TAB(2);"MIN. MESNET MOMENTLERI (tm/m) ":"GOSUB 5490
4700 CLS
4710 FOR Y%=1 TO AS%-1
4720 LOCATE Y%,3:PRINT "D";FNB$(J$(R(Y%)),P$);" ";CHR$(177);" ? (cm)";CHR$(177);
" D";FNB$(J$(R(Y%+1)),P$);SPACE$(30)
4730 LOCATE Y%+1,5:INPUT "DOSEMELERI ARASI MESNET GENISLIGI (cm) =",T(Y%)
4740 LOCATE Y%,9:PRINT USING "##";T(Y%)
4750 T(Y%)=T(Y%)/100
4760 NEXT Y%
4770 FOR I%=1 TO AS%-1
4780 X(I%)=X(I%)+(Q(2*I%)+Q(2*I%+1))*T(I%)/4
4790 NEXT I%
4800 IF (D(7,R(1))*XK%+D(8,R(1))*YK%)=0 THEN 4820
4810 U(1)=FNA(0,P(1,1),B(1,R(1)),B(2,R(1)),XK%,YK%,D(7,R(1)),D(8,R(1)))
4820 IF ((AS%/2)-INT(AS%/2)) <> 0 THEN 4830 ELSE KH=P(2,AS%-1):GOTO 4840
4830 KH=P(1,AS%-1):IF (D(7,R(AS%))*XK%+D(8,R(AS%))*YK%)<>0 THEN 4850 ELSE U(AS%)=0:GOTO 4860
4840 IF (D(7,R(AS%))*XK%+D(8,R(AS%))*YK%)=0 THEN U(AS%)=0:GOTO 4860
4850 U(AS%)=FNA(KH,0,B(1,R(AS%)),B(2,R(AS%)),XK%,YK%,D(7,R(AS%)),D(8,R(AS%)))
4860 IF AS%=3 THEN 4930
4870 IF AS%=2 THEN 4990
4880 FOR F%=1 TO AS%-2 STEP 2
4890 IF (D(7,R(F%+2))*XK%+D(8,R(F%+2))*YK%)=0 THEN U(F%+2)=0:GOTO 4910
4900 U(F%+2)=FNA(P(1,F%+1),P(1,F%+2),B(1,R(F%+2)),B(2,R(F%+2)),XK%,YK%,D(7,R(F%+2)),D(8,R(F%+2)))
4910 NEXT F%
4920 IF AS% <=4 THEN 4970
4930 FOR N%=1 TO AS%-1 STEP 2
4940 IF (D(7,R(N%+1))*XK%+D(8,R(N%+1))*YK%)=0 THEN U(N%+1)=0:GOTO 4960
4950 U(N%+1)=FNA(P(2,N%),P(2,N%+1),B(1,R(N%+1)),B(2,R(N%+1)),XK%,YK%,D(7,R(N%+1)),D(8,R(N%+1)))
4960 NEXT N%
4970 IF (D(7,R(2))*XK%+D(8,R(2))*YK%)=0 THEN U(2)=0:GOTO 4990

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4980 U(2)=FNA(P(2,1),P(2,2),B(1,R(2)),B(2,R(2)),XK%,YK%,D(7,R(2)),D(8,R(2)))
4990 FOR M%=1 TO AS%
5000 U(M%)=U(M%)*(E(1,R(M%))*XK%+E(2,R(M%))*YK%)
5010 NEXT M%
5020 CLS: IF AS%=1 THEN U(1)=(E(1,R(1))*XK%+E(2,R(1))*YK%)*FNA(0,0,B(1,R(1)),B(2,
R(1)),XK%,YK%,D(7,R(1)),D(8,R(1)))
5030 LOCATE 1,18:PRINT "MAX. ACIKLIK MOMENTLERI (tm)"
5040 PRINT STRING$(80,223)
5050 FOR RR%=1 TO AS%
5060 PRINT TAB(2); "D"; FNB$(J$(R(RR%)),P$); " > M"; Y$; "("; RR%; USING ")=##.##"; U(RR
%)
5070 NEXT RR%
5080 PRINT: IF AS%=1 THEN 5140
5090 PRINT TAB(18); "MIN. MESNET MOMENTLERI (tm)"
5100 PRINT STRING$(80,223)
5110 FOR K%=1 TO AS%-1
5120 PRINT TAB(2); "D"; FNB$(J$(R(K%)),P$); " & D"; FNB$(J$(R(K%+1)),P$); " > "; Z$; "("
"; K%+1; USING ")=##.##"; X(K%)
5130 NEXT K%: DZ%=0: GOSUB 5480
5140 GOSUB 5560: AS$=" BASKA PROBLEM VAR MI ? (E/H) ": R%=22: GOSUB 5990
5150 IF AS%=1 AND I$="E" THEN ERASE U,R,P: GOTO 3670
5160 IF I$="E" THEN ERASE F,G,X,L,I,R,K,Q,U,M,N,P,T: GOTO 3670
5170 IF I$="H" THEN END
5180 REM DETERMINANT ALT PROGRAM
5190 DET=1
5200 FOR T%=1 TO AS%-3
5210 L%=AS%-1-T%: N1%=AS%-2-T%
5220 DET=DET/(K(1,1)^N1%)
5230 FOR I%=1 TO L%
5240 FOR J%=1 TO L%
5250 L(I%,J%)=K(1,1)*K(I%+1,J%+1)-K(1,J%+1)*K(I%+1,1)
5260 NEXT J%
5270 NEXT I%
5280 FOR N%=1 TO L%
5290 FOR M%=1 TO L%
5300 K(N%,M%)=L(N%,M%)
5310 NEXT M%
5320 NEXT N%
5330 NEXT T%
5340 DET=DET*(K(1,1)*K(2,2)-K(1,2)*K(2,1))
5350 RETURN
5360 REM D\`EME TIPLERI
5370 RETURN
5380 INPUT "KARAKTER BUYUKLUGU ? (Kucuk/Degisik) "; BK$: IF BK$="K" THEN LPRINT CH
R$(15);
5390 INPUT "ACIKLAMA : ", BS$: LPRINT CHR$(14) TAB(5); BS$: LPRINT
5400 LPRINT " DOSEME Tip lx ly d g P q Eps. Kapa
Ro gx px qx nx gy PY
qy ny"
5410 LPRINT TAB(11); " (m) (m) (cm) (t/m^2) (t/m^2) (t/m^2)
(t/m^2) (t/m^2) (t/m^2) (t/m^2) (t/m^2) (t
/m^2)"
5420 LPRINT "=====
=====
=====
5430 RETURN

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5440 LPRINT TAB(2); "D"; J$(T%); TAB(8); USING " # ##. # ##. # ## ##.### ##.###
##.###"; TP%; B(1, T%); B(2, T%); B(3, T%); B(4, T%); B(5, T%); D(1,
T%);
5450 LPRINT TAB(52); USING "#.## #.## #.## ##.###"; C(1, T%); C(2, T%); D(2, T%); D(
3, T%);
5460 LPRINT TAB(80); USING "##.### ##.### #.## ##.### ##.### ##.### #.
##"; D(5, T%); D(7, T%); E(1, T%); D(4, T%); D(6, T%); D(8, T%); E(2,
T%)
5470 RETURN
5480 DZ%=0: IF AS%=1 THEN 5550 ELSE LPRINT:LPRINT:LPRINT TAB(2); "DIJZELTILMIS MESN
ET MOMENTLERI (tm/m)"; TAB(68); "MAX. ACIKLIK MOMENTLERI (
tm/m)"
5490 LPRINT TAB(1); "-----
-----"
-----"
5500 FOR K%=1 TO AS%-DZ%: IF K%=AS% THEN 5530
5510 LPRINT TAB(2); "D"; FNB$(J$(R(K%)), P$); " & D"; FNB$(J$(R(K%+1)), P$); " > "; Z$; "
("; K%+1; USING ")=+##.##"; X(K%);
5520 IF DZ%=1 THEN 5540
5530 LPRINT TAB(68); "D"; FNB$(J$(R(K%)), P$); " > M"; Y$; "("; K%; USING ")=##.##"; U(K%
)
5540 NEXT K%
5550 RETURN
5560 LPRINT: INPUT "Sb=? (kg/cm^2) "; SIGB: INPUT "Se=? (kg/cm^2) "; SIGE: INPUT "DON
ATI CAPI Fi", FI: O$="(Fi"+STR$(FI)+"/": LPRINT TAB(10); "Sb
="; SIGB; " kg/cm^2"; TAB(28); " & Se="; SIGE; " kg/cm^2": IF AS%<>1 THEN 5610
5570 MD=U(1)*100: DD=B(3, R(1))-1.5: GOSUB 5820: P(1, 1)=FE/2: P(1, 2)=T*2
5580 LPRINT TAB(1); "-----
-----"
-----"
5590 LPRINT TAB(20); "D"; FNB$(J$(R(1)), P$); " > M"; Y$; "("; 1; USING ")=##.##"; U(1); :
LPRINT " tm/m Plye :"; USING "#.##&##.##"; P(1, 1); O$; P(1, 2); :
LPRINT " D)z :"; USING "#.##&##.##"; P(1, 1); O$; P(1, 2)
5600 RETURN
5610 FOR J%=1 TO AS%-1
5620 DD=B(3, R(J%))-1.5: MD=X(J%)*100
5630 GOSUB 5820: P(2, J%)=FE: NEXT J%
5640 FOR I%=1 TO AS%
5650 DD=B(3, R(I%))-1.5
5660 MD=U(I%)*100
5670 GOSUB 5820: P(1, 1)=FE/2: P(1, 2)=T*2
5680 IF I%=AS% THEN 5800 ELSE DD=B(3, R(I%+1))-1.5
5690 MD=U(I%+1)*100: GOSUB 5820
5700 P(1, 3)=FE/2: P(1, 4)=T*2
5710 FET=P(1, 1)+P(1, 3): EK=0: TMES=0: IF P(2, I%) > FET THEN EK=P(2, I%)-FET
5720 IF EK>0 THEN TMES=FNC(FI8*100/EK)
5730 IF TMES>33 THEN TMES=33: EK=1.52
5740 LPRINT TAB(1); "-----
-----"
-----"
5750 LPRINT TAB(40); "D"; FNB$(J$(R(I%)), P$); TAB(60); "MESNET"; TAB(87); "D"; FNB$(J$(
R(I%+1)), P$);
5760 G$="--": IF TMES <> 0 THEN G$=O$+STR$(TMES)+")"
5770 LPRINT TAB(10); "Plye :"; TAB(32); USING "#.##&##.##"; P(1, 1); O$; P(1, 2); : LPRIN
T TAB(60); USING "(#.##+##.##)"; P(1, 1); P(1, 3); : LPRINT TAB(
80); USING "#.##&##.##"; P(1, 3); O$; P(1, 4);
5780 LPRINT TAB(10); "D)z :"; TAB(32); USING "#.##&##.##"; P(1, 1); O$; P(1, 2); : LPRIN
T TAB(57); "Ek :"; G$; : LPRINT TAB(80); USING "#.##&##.##"; P
(1, 3); O$; P(1, 4);

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5790 NEXT I%
5800 LPRINT TAB(1):"-----
-----"
5810 RETURN
5820 MO=ABS(MD): IF MO=0 THEN MO=.01
5830 TM=20: IF TM > 1.5*(DD+1.5) THEN TM=1.5*(DD+1.5)
5840 PI#=ATN(1)*4: KH=DD/SQR(MO/10): KK=KH*KH: ALFA=ATN(-SQR(27*(1000/(KK*SIGE)+1/3)
)^3-1))
5850 DEF FNC(X)=INT(2*X+.4)/2
5860 IF ALFA < 0 THEN ALFA=ALFA+PI#
5870 KZ=2/3+2*SQR(1000/(KK*SIGE)+1/3)*COS(ALFA/3+PI#*4/3)/SQR(3)
5880 KX=(1-KZ)*3: SB=SIGE/((1/KX-1)*15)
5890 IF SB <= SIGB THEN 5910
5900 CLS: LOCATE 13,25: PRINT "DOSEME KALINLIGI YETERSIZ...": PRINT TAB(25); USING "
##.## > ##"; SB; SIGB: END
5910 FE=MO/(SIGE*KZ*DD/1000)
5920 FI8=PI#*(FI/10)^2/4
5930 ARA=FI8*100/FE
5940 T=FNC(ARA): IF T > TM THEN T=TM
5950 FEA=FI8*100/T: FE=FEA: FEU=0
5960 IF MD > 0 THEN RETURN
5970 FEU=FEA: FEA=0
5980 RETURN
5990 I$=INKEY$
6000 KEY OFF: LOCATE 25,R%: COLOR 0,7: PRINT AS$
6010 IF I$="E" OR I$="H" OR I$="X" OR I$="Y" THEN KEY ON: COLOR 7,0: RETURN
6020 GOTO 5990

7000 REM KIRIS HESABI
7010 OPEN "B:KOLON.SON" FOR APPEND AS#2
7020 DIM K$(MAS1%,MAS%),L$(MAS%*MAS1%): OPEN "0",#3,DOSYA$
7030 GOSUB 7050: GOTO 7080
7040 ERASE A,B,C,D,E,F,G,H,I,J,K,L,M,N,P,Q,R,S,T,U,V,W,Y,Z,AT,AK,KR$,SS$
7050 DIM A(MAS%,4),B(MAS%,MAS%),C(MAS%,MAS%),D(MAS%),E(MAS%),F(MAS%,9),G(2*MAS%)
,H(2*MAS%),I(MAS%,2),J(MAS%,2),K(MAS%,2),L(MAS%,2),M(MAS
%,MAS%),N(MAS%,4)
7060 DIM P(MAS%,5),Q(MAS%,2),R(MAS%,2),S(MAS%),T(MAS%),U(MAS%),V(MAS%),W(2,8),Z(
MAS%,3),Y(MAS%,2),KR$(MAS%),SS$(2,MAS1%),AT(MAS%),AK(MAS
%,2)
7070 RETURN
7080 BO$=SPACE$(10): PP$=" FILE YAZILI MI ? (E/H) "
7090 GE$="GERILME": KAT$="KATSAYI": MM$="MOMENT": CE$="CELIK"
7100 PRINT#3,CHR$(15);: WIDTH #3,255: GOSUB 7620
7110 CLS: GOSUB 7120: GOTO 7190
7120 CLS: INPUT "BLOK NO=",BL$: INPUT "TARİH =",TU$
7130 CLS: AS$=" ALT KOLON UST KOLON BOYUTLARI ESİT MI ? (E/H) ": R%=16: GOSUB 14060
: ALT#=I$: CLS
7140 INPUT "UST KOLON YUKSEKLİGİ (m) =",HO
7150 INPUT "ALT KOLON YUKSEKLİGİ (m) =",HU: AS$=" YANLIS VAR MI ? (E/H) ": R%=25: G
OSUB 14060: IF I$="E" THEN CLS: GOTO 7140
7160 RETURN
7170 WIDTH #3,255: INPUT "AKS NO =",U$: INPUT "ACIKLIK SAYISI =",N%: AS$=" YANLIS V
AR MI ? (E/H) ": R%=25: GOSUB 14060: IF I$="E" THEN CLS: GOT

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0 7170:ELSE RETURN
7180 AS$=" YUK TIPLERINI ISTIYOR MUSUN ? (E/H) ":R%=25:GOSUB 14060:IF I$="E" THE
N GOSUB 14120
7190 AS$=" GUVENLIK GERILMELERI"+PP$:R%=20:GOSUB 14060:FIL$=I$
7200 IF FIL$="H" THEN 7220
7210 OPEN "I",#1,GE$:INPUT#1,XB,XN,XD,XE:CLOSE#1:GOTO 7250
7220 CLS:PRINT "GUVENLIK GERILMELERI (kg/cm^2)":PRINT "-----
-----":INPUT "TABLALI KESIT ACIKLIK SIGMAB      =",
XB:INPUT "TABLALI KESIT MESNET SIGMAB      =",XN:INPUT "DIKDORTGEN KESIT SIGMAB
      =",XD
7230 INPUT "CELIK GUVENLIK GERILMESI SIGMAE =",XE
7240 FL$=GE$:GOSUB 14100:PRINT#1,XB,XN,XD,XE:CLOSE#1
7250 AS$=" GUVENLIK KATSAYILARI"+PP$:R%=20:GOSUB 14060:FIL$=I$
7260 IF FIL$="H" THEN 7270 ELSE OPEN "I",#1,KAT$:INPUT#1,CD,CR,EF,PP:CLOSE#1:GOT
O 7300
7270 CLS:PRINT "GUVENLIK KATSAYILARI : ":PRINT "-----
-----"
7280 INPUT "DEPREM GUVENLIK KATSAYISI      =",CD:PRINT:INPUT "RUZGAR GUVENLIK
KATSAYISI      =",CR:PRINT:INPUT "ANKASTRELİK KATSAY
ISI      =",EF:PRINT:PRINT:INPUT "FAS PAYI (cm)      =",PP
7290 FL$=KAT$:GOSUB 14100:PRINT#1,CD,CR,EF,PP:CLOSE#1
7300 IF XB<1 THEN 7390
7310 CLS:PRINT "GUVENLIK GERILMELERI (kg/cm^2)":PRINT "-----
-----":PRINT "TABLALI KESIT ACIKLIK SIGMAB      =";
XB:PRINT "TABLALI KESIT MESNET SIGMAB      =";XN:PRINT "DIKDORTGEN KESIT SIGMAB
      =";XD
7320 PRINT "CELIK GUVENLIK GERILMESI SIGMAE =";XE
7330 PRINT:PRINT "GUVENLIK KATSAYILARI : ":PRINT "-----
-----"
7340 PRINT "DEPREM GUVENLIK KATSAYISI      =";CD:PRINT:PRINT "RUZGAR GUVENLIK
KATSAYISI      =";CR:PRINT:PRINT "ANKASTRELİK KATSAY
ISI      =";EF:PRINT:PRINT:PRINT "FAS PAYI (cm)      =";PP
7350 AS$=" YANLIS VAR MI ? (E/H) ":R%=25:GOSUB 14060:IF I$="E" THEN CLS:GOTO 722
0
7360 AS$=" GUVENLIK GERILMELERI KAGIDA YAZILSIN MI ? (E/H) ":R%=16:GOSUB 14060:I
F I$="H" THEN 7380
7370 GOSUB 15460:PRINT#3,TAB(8);"TAR";CHR$(173);"H=";TU$;" * BLOK NO=";BL$
7380 XB=.001*XB:XD=.001*XD:XN=.001*XN:XE=.001*XE
7390 M%=0:SE=XE:CD=1/CD:CR=1/CR:CLS
7400 GOSUB 7170:IF SGN(N%)=0 THEN 7110
7410 IF SGN(N%)<0 THEN END
7420 PRINT#3,TAB(8);"AKS NO =" ;U$;"      A";CHR$(128);"IKLIK SAYISI =" ;N%:GOSUB 77
00:ILKAZ=1:SONAZ=1
7430 GOSUB 8440
7440 GOSUB 8920
7450 IF=IF-1
7460 GOSUB 9290
7470 CLS:PRINT TAB(37);"COZUM"
7480 IF SGN(M%)<>0 THEN 7530
7490 GOSUB 10540
7500 GOSUB 11110
7510 GOSUB 11550
7520 GOTO 7560
7530 GOSUB 12020
7540 GOSUB 12690
7550 GOSUB 13180
7560 GOSUB 13660
7570 IF SGN(XB)<=0 THEN 7600
7580 IF SGN(JT%)<=0 THEN 7600

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7590 PRINT#3," ":GOSUB 14130
7600 CLS:AS$=" YENIDEN HESAP VAR MI ? (E/H) ":R%=25:GOSUB 14060:IF I$="E" THEN C
LS:GOTO 7400 ELSE IF I$="H" THEN 7610
7610 CLOSE:END
7620 REM _____ KYD _____
7630 FOR J%=1 TO MAS%*MAS1% STEP 2
7640 L$(J%)="Q":L$(J%+1)="G":NEXT J%
7650 FOR J%=2 TO MAS%:M%=MAS%+2-J%
7660 IB=MAS1%*J%-(MAS%-2):IS=IB+J%-2
7670 FOR I%=IB TO IS:M%=M%+1:L$(I%)=L$(M%)
7680 NEXT I%:NEXT J%
7690 FOR I%=1 TO MAS1%:FOR J%=1 TO MAS%:L%=(J%-1)*MAS1%+I%:K$(I%,J%)=L$(L%):NEXT
J%:NEXT I%:L$(1)="" :RETURN
7700 I$(1)="" :JD%=0:JR%=0:JT%=0:I1%=0:GOTO 7740
7710 AS$="ARA ISLEMLER GEREKLI MI (E/H) ? ":R%=20:GOSUB 14060:IP=0:IF I$="E" THE
N AS$="EN ELVERISSIZ YUKLEME SONUCUNU ISTIYOR MUSUN (E/H
) ? ":R%=15:GOSUB 14060:IF I$="E" THEN IP=1
7720 AS$="ARA MATRISLERI VE DONMELERI ISTIYOR MUSUN (E/H) ? ":R%=15
7730 GOSUB 14060:IF I$="E" THEN IP=2
7740 CLS:LOCATE 5,7:PRINT "KIRIS TAKIMI CINSI:":PRINT:PRINT "
-----"
-----":PRINT:PRINT:PRINT:PRINT TAB(7);"N==>".
.....NORMAL KAT":PRINT:PRINT:PRINT TAB(7);"C==>.....CATI KATI":PRINT:PRINT
7750 PRINT TAB(7);"S==>.....SÜREKLI KIRIS":PRINT:PRINT TAB(7);"SECENEGINIZI GI
RINIZ."
7760 AS$="" :GOSUB 14060
7770 IF I$="N" THEN I1%=0:GOTO 7810
7780 IF I$="C" THEN I1%=1:GOTO 7810
7790 IF I$="S" THEN I1%=2:GOTO 7810
7800 GOTO 7760
7810 IF U$(">")="*" THEN 7840
7820 N%=0
7830 RETURN
7840 CLS:PRINT "MESNET KOSULLARINI VERINIZ ":PRINT "1.MESNET ANKASTRE =1":PRIN
T "SON MESNET ANKASTRE =2":PRINT "BAS VE SON MESNETLER
ANKASTRE =3":INPUT "DIGER DURUMLAR ICIN BOS GECINIZ... ",SIR%
7850 AS$=" DEPREM MOMENTI VAR MI (E/H) ? ":R%=20:GOSUB 14060:IF I$="E" THEN JD%=
1
7860 REM AS$=" RUZGAR MOMENTI VAR MI (E/H) ? ":R%=20:GOSUB 8560:IF I$="E" THEN J
R%=1
7870 AS$=" DONATI HESABI VAR MI (E/H) ? ":R%=20:GOSUB 14060:IF I$="E" THEN JT%=1
7880 CLS
7890 PRINT "KIRIS BOYLARI (m) ":PRINT:PRINT "-----":FOR I%=2 TO
N%:PRINT "L(;"I%-1;")="";:INPUT "",E(I%):NEXT I%
7900 PRINT "L(;"N%;")="";:INPUT "",E(N%+1)
7910 AS$=" YANLIS VAR MI ? (E/H) ":R%=25:GOSUB 14060:IF I$="E" THEN 7880
7920 CLS
7930 N1%=N%+1:N2%=N%+2:E(N2%)=1
7940 IF JD%<=0 THEN FOR P%=1 TO 15:Q(P%,1)=0:Q(P%,2)=0:NEXT P%:GOTO 8000
7950 CLS:YU$="":AS$=" DEPREM MOMENTLERI FILEDE YAZILI MI ? (E/H) ":R%=20:GOSUB 1
4060:IF I$="H" THEN YU$="H":GOTO 7990
7960 INPUT "DEPREM MOMENTLERI KAT / ILK ELEMAN NO / YONU (X/Y) ":KW$,EK%,XY$
7970 OPEN "I",#1,"B:"+XY$+"KI"+KW$:FOR T%=1 TO EK%-1:INPUT#1,XX$,ZZ1,ZZ1:NEXT T%
7980 FOR I%=1 TO N%:INPUT#1,XX$,Q(I%+1,1),Q(I%+1,2):NEXT I%:CLOSE#1
7990 IF YU$="H" THEN CLS:FOR P%=2 TO N%+1:PRINT (P%-1);".Kiris ";:INPUT " DEPREM
Mso1 , Msag (tm) ":Q(P%,1),Q(P%,2):NEXT P%

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8000 IF (I1%-1)=0 THEN 8100
8010 IF (I1%-1)>0 THEN 8160
8020 CLS:PRINT "UST KOLONLARIN BOYUTLARI (cm):":PRINT "-----"
      "-----"
8030 FOR I%=1 TO N1%:PRINT I%;". KOLON ADI B / D ? ";;INPUT " S",SS$(1,I%),B(I%
,1),P(I%,4):IF ALT$="E" THEN SS$(2,I%)=SS$(1,I%):B(I%,2)
=B(I%,1):P(I%,5)=P(I%,4)
8040 NEXT I%
8050 AS$=" YANLIS VAR MI ? (E/H) ":R%=25:GOSUB 14060:IF I$="E" THEN 8020
8060 FOR I%=1 TO N1%
8070 IF P(I%,4)<>0 THEN 8090
8080 P(I%,4)=B(I%,1):B(I%,1)=0
8090 NEXT I%:IF ALT$="E" THEN 8120
8100 CLS:PRINT "ALT KOLONLARIN BOYUTLARI (cm) ":PRINT "-----"
      "-----":PRINT:FOR I%=1 TO N1%:PRINT I%;". KOL
ON ADI B / D ? ";;INPUT "S",SS$(2,I%),B(I%,2),P(I%,5):NEXT I%
8110 AS$=" YANLIS VAR MI ? (E/H) ":R%=25:GOSUB 14060:IF I$="E" THEN 8100
8120 FOR I%=1 TO N1%
8130 IF P(I%,5)<>0 THEN 8150
8140 P(I%,5)=B(I%,2):B(I%,2)=0
8150 NEXT I%:N(1,1)=0:N(1,2)=0:N(1,3)=0:N(1,4)=0:N(N2%,1)=0:N(N2%,2)=0:N(N2%,3)=
0:N(N2%,4)=0:A(1,1)=0:A(N2%,1)=0
8160 CLS:AS$=" TUM KIRISLER AYNI BOYUTTA MI ? (E/H) ":R%=19:GOSUB 14060:AYNI$=I$
:CLS:PRINT "KIRISLERIN BOYUTLARI (cm) ":PRINT;"-----"
      "-----"
8170 INPUT " 1 . KIRIS ADI bo / do / b / d (cm) ? K",KR$(2),N(2,1),N(2,2),N(2,3)
,N(2,4):FOR I%=3 TO N1%
8180 N(I%,4)=0:IF AYNI$="E" THEN PRINT I%-1;". KIRIS ADI=? ";;INPUT "K",KR$(I%):
N(I%,1)=N(2,1):N(I%,2)=N(2,2):N(I%,3)=N(2,3):N(I%,4)=N(2
,4):GOTO 8200
8190 PRINT I%-1;". KIRIS ADI bo / do / b / d (cm) ? ";;INPUT "K",KR$(I%),N(I%,1)
,N(I%,2),N(I%,3),N(I%,4)
8200 NEXT I%
8210 AS$=" YANLIS VAR MI ? (E/H) ":R%=25:GOSUB 14060:IF I$="E" THEN 8160
8220 AS$=" SOLDAN KONSOL VAR MI ? (E/H) ":R%=20:GOSUB 14060:SOL$=I$:IF I$="E" TH
EN CLS:INPUT "KIRIS ADI / bo / do / b / d (cm) / l (m)
? K",KR$(1),N(1,1),N(1,2),N(1,3),N(1,4),E(1)
8230 AS$=" SAGDAN KONSOL VAR MI ? (E/H) ":R%=20:GOSUB 14060:SAG$=I$:IF I$="E" TH
EN CLS:INPUT "KIRIS ADI / bo / do / b / d (cm) / l (m)
? K",KR$(N%+2),N(N%+2,1),N(N%+2,2),N(N%+2,3),N(N%+2,4),E(N%+2)
8240 KON1=E(1):KON2=E(N%+2)
8250 IF EF>0 THEN 8270
8260 EF=1
8270 FOR I%=2 TO N1%
8280 FP=N(I%,3)*N(I%,4):FS=N(I%,1)*(N(I%,2)-N(I%,4))
8290 A(I%,1)=.0000005/6*(FP*N(I%,4)^2+FS*(ABS(N(I%,2)-N(I%,4)))^2)+2.5E-07*ABS(N
(I%,2))^2*FP*FS/(FP+FS)
8300 AT(I%)=A(I%,1)*100:NEXT I%
8310 FOR I%=1 TO N1%
8320 IF (I1%-1)=0 THEN 8380
8330 IF SGN(I1%-1)>0 THEN 8430
8340 IF B(I%,1)<>0 THEN 8370
8350 P(I%,1)=4.908738E-08*P(I%,4)^4
8360 GOTO 8380
8370 P(I%,1)=.0000005/6*B(I%,1)*P(I%,4)^3
8380 IF B(I%,2)<>0 THEN 8410
8390 P(I%,2)=4.908738E-08*P(I%,5)^4

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8400 GOTO 8420
8410 P(I%,2)=.0000005/6*B(I%,2)*F(I%,5)^3
8420 AK(I%,1)=P(I%,1)*100:AK(I%,2)=P(I%,2)*100:NEXT I%
8430 RETURN
8440 REM _____SUBBX_____
8450 FOR I%=1 TO N1%
8460 IF (I1%-1)=0 THEN 8510
8470 IF (I1%-1)>0 THEN 8550
8480 S(I%)=B(I%,1):T(I%)=P(I%,4)
8490 IF B(I%,1)<>0 THEN 8510
8500 P(I%,4)=2/3##*P(I%,4)
8510 U(I%)=B(I%,2):V(I%)=P(I%,5)
8520 IF B(I%,2)<>0 THEN 8540
8530 P(I%,5)=2/3##*P(I%,5)
8540 NEXT I%
8550 REM
8560 IF I1%=2 THEN 8620
8570 ON I1%+1 GOTO 8590,8600
8580 GOTO 8620
8590 PRINT:PRINT USING "UST KOLONLARIN YUKSEKLIGI (m) =##.##";HO
8600 PRINT USING "ALT KOLONLARIN YUKSEKLIGI (m) =##.##";HU
8610 PRINT " KIRIS BOYLARI (m) :":PRINT:FOR I%=2 TO N1%:PRINT USING "L(##)=##
.## ";I%-1,E(I%);:NEXT I%
8620 PRINT#3,TAB(10);"ELEMEN          bo          do          b          d          J          ki
L,h"
8630 PRINT#3,TAB(10);" ADI:          (cm)          (cm)          (cm)          (cm)          (dm";GOSUB 15440
8640 PRINT#3, "          (dm";GOSUB 15440:PRINT#3,"/m)          (m)"
8650 PRINT#3,TAB(8);"=====
=====
8660 IF SOL$="E" THEN Z1%=1 ELSE Z1%=2
8670 IF SAG$="E" THEN Z2%=1 ELSE Z2%=0
8680 FOR D%=Z1% TO N1%+Z2%
8690 PRINT#3,TAB(10);"K";KR$(D%);TAB(20);USING "###          ###          ###          ##";N(D%,1)
;N(D%,2);N(D%,3);N(D%,4);
8700 PRINT#3,TAB(48);USING "#####          #####          #####          ##";AT(D%);AT(D%)/E(D%);:PRINT#3,TA
B(73);USING "##.##";E(D%)
8710 NEXT D%:IF I1%=2 THEN 8790
8720 FOR C%=1 TO N1%
8730 PRINT#3,TAB(10);"S";SS$(2,C%);TAB(34);USING "###          ##";U(C%);V(C%);
8740 PRINT#3,TAB(48);USING "#####          #####          #####          ##";AK(C%,2);AK(C%,2)/HU;:PRINT#3,T
AB(73);USING "##.##";HU
8750 IF I1%=1 THEN 8780
8760 PRINT#3,TAB(10);"S";SS$(1,C%);TAB(34);USING "###          ##";S(C%);T(C%);
8770 PRINT#3,TAB(48);USING "#####          #####          #####          ##";AK(C%,1);AK(C%,1)/HO;:PRINT#3,T
AB(73);USING "##.##";HO
8780 NEXT C%:E(1)=1:E(N%+2)=1
8790 IF (I1%-1)=0 THEN 8820
8800 IF (I1%-1)>0 THEN 8850
8810 PRINT "UST KOLONLARIN BOYUTLARI (cm) :":FOR I%=1 TO N1%:PRINT USING "### x
### ";S(I%);T(I%);:NEXT I%:PRINT
8820 PRINT#2,"":PRINT#2,TAB(8);BL$;" ";TU$;" AKS NO: ";U$
8830 PRINT#2,TAB(8);"ALT KOLONLARIN BOYUTLARI (cm) :":PRINT#2,TAB(8);:FOR I%=1 T
O N1%:PRINT#2,USING "S& ##/# ## ";SS$(2,I%);U(I%);V(I%);
:NEXT I%
8840
8850 FOR I%=1 TO N1%+1

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8860 S(I%)=N(I%,1):T(I%)=N(I%,2):U(I%)=N(I%,3):V(I%)=N(I%,4)
8870 NEXT I%
8880
8890
8900
8910 RETURN
8920 REM _____ SUBB5 _____
8930 PRINT:A(1,1)=0:E(1)=1
8940 REM ****RED\RLERI BUL BAS****
8950 FOR I%=1 TO N1%
8960 IF (I1%-1)=0 THEN 8990
8970 IF (I1%-1)>0 THEN 9000
8980 P(I%,1)=P(I%,1)/HO*10*EF
8990 P(I%,2)=P(I%,2)/HU*10*EF
9000 NEXT I%:FOR I%=2 TO N1%
9010 A(I%,1)=A(I%,1)/E(I%)*10
9020 NEXT I%
9030 A(N2%,1)=0
9040 REM
9050 REM
9060 FOR I%=1 TO N1%
9070 IF (I1%-1)=0 THEN 9100
9080 IF (I1%-1)<0 THEN 9110
9090 P(I%,2)=0
9100 P(I%,1)=0
9110 P(I%,4)=2*(P(I%,1)+P(I%,2)+A(I%,1)+A(I%+1,1))
9120 P(I%,3)=A(I%+1,1)
9130 NEXT I%
9140 IF SIR%=1 OR SIR%=3 THEN P(1,4)=500+P(1,4)
9150 IF SIR%=2 OR SIR%=3 THEN P(N1%,4)=500+P(N1%,4)
9160 P(N1%,3)=0
9170 GOTO 9200
9180 CLS:PRINT "ACIKLIK      YUK TIPI      g      p      c      d      Msol (q)
      Msag":PRINT " ADI:      (t/m)      (t/m)      (m)
      (m)      (tm)      (tm)"
9190 PRINT "-----"
      "":RETURN
9200 FOR I%=1 TO N2%
9210 G(I%)=0:H(I%)=0:G(I%+12)=0:H(I%+12)=0:A(I%,4)=0:D(I%)=0
9220 NEXT I%
9230 FOR I%=2 TO N1%
9240 FOR J%=1 TO 9
9250 F(I%,J%)=0
9260 NEXT J%:NEXT I%
9270 EMG1=0:EMG2=0:EMP1=0:EMP2=0
9280 RETURN
9290 REM _____ SUBYF _____
9300 GOSUB 9180:'CLS:PRINT "PRINTERI AYARLAYINIZ...>... DEVAM ICIN [ 2 ] TUSUNA
      BASINIZ ":STOP:CLS:GOSUB 2130
9310 PRINT#3," ":PRINT#3,TAB(8);"A";CHR$(128);"IKLIK      Y";CHR$(129);"k Tipi      g
      P      q      c      d      Msol (q) Msag
      A";CHR$(128);"IKLAMA":PRINT#3,TAB(8);"NO ADI      (t/m)      (t/m)      (t
      /m)      (m)      (m)      (tm)      (tm)"

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9320 PRINT#3, TAB(8); STRING$(129, "-")
9330 Q%=3: OT$=""
9340 Q%=Q%+1: Q%=(Q%-4) MOD 20)+4: IF Q%=24 THEN OT$="E": GOSUB 9180
9350 LOCATE Q%, 3: INPUT "", W(1, 1): LOCATE Q%, 15: INPUT "", W(1, 2): IF W(1, 2)=15 THEN
9410
9360 LOCATE Q%, 21: INPUT "", W(1, 3): LOCATE Q%, 30: INPUT "", W(1, 4)
9370 IF W(1, 2)=2 OR W(1, 2)=3 OR W(1, 2)=4 OR W(1, 2)=5 OR W(1, 2)=7 THEN 9400
9380 IF W(1, 2)=1 OR W(1, 2)=15 OR W(1, 2)=6 THEN 9410
9390 LOCATE Q%, 39: INPUT "", W(1, 5): LOCATE Q%, 47: INPUT "", W(1, 6): GOTO 9430
9400 LOCATE Q%, 39: INPUT "", W(1, 5): W(1, 6)=E(W(1, 1)+1)-W(1, 5): IF W(1, 2)=5 THEN W(1
, 6)=W(1, 6)-W(1, 5): GOTO 9430: ELSE 9430
9410 W(1, 5)=E(W(1, 1)+1): W(1, 6)=0: LOCATE Q%, 18: IF W(1, 2)=15 THEN INPUT "Vg / Vp (
t), Mg / Mp (tm) : "; W(1, 3), W(1, 4), W(1, 5), W(1, 6)
9420 IF W(1, 2)<>6 THEN 9430 ELSE W(1, 5)=E(W(1, 1)+1)/2: W(1, 6)=W(1, 5)
9430 MY1=W(1, 2)
9440 IF W(1, 4)=0 AND W(1, 1)=0 AND W(1, 2)=0 AND W(1, 3)=0 THEN RETURN ELSE 9450
9450 MY1=W(1, 2)
9460 IF MY1<=0 THEN RETURN ELSE 9500
9470 LOCATE Q%, 1: PRINT CHR$(26); "K"; KR$(W(1, 1)+1); : PRINT TAB(7); USING "      ##
    ##.###    ##.###    #.##    #.##    +##.###    +##.###
"; W(1, 2), W(1, 3), W(1, 4), W(1, 5), W(1, 6), SMA, SMB
9480 PRINT#3, TAB(8); USING "## K&"; W(1, 1); KR$(W(1, 1)+1); : PRINT#3, TAB(19); USING "
##    ##.###    ##.###    ##.###    #.##    #.##"; W(1, 2), W
(1, 3), W(1, 4), W(1, 3)+W(1, 4), W(1, 5), W(1, 6);
9490 PRINT#3, TAB(68); USING "+###.###    +###.###    & "; SMA, SMB; AZ$: GOTO 9970
9500 AZ$="": AS$=" YANLIS VAR MI ? (E/H) ": R%=25: GOSUB 14060: IF I$="E" THEN Q%=Q%
-1: GOTO 9340
9510 REM
9520 MAK=W(1, 1): MYK=W(1, 2): YU1=W(1, 3): YU2=W(1, 4): YT=YU1+YU2: NA=MAK+1: Z1=W(1, 5): Z
2=W(1, 6)
9530 IF MYK<=0 THEN 9970
9540 IF MAK<0 THEN 9610
9550 IF MAK>0 THEN 9580
9560 IF (MYK-15)=0 THEN 9630
9570 GOTO 9610
9580 IF (MAK-N1%)<0 THEN 9680
9590 IF (MAK-N1%)>0 THEN 9610
9600 IF (MYK-15)=0 THEN 9650
9610 PRINT "VERILERINIZ YANLIS.!"
9620 GOTO 9500
9630 D(1)=D(1)+YT: EMG1=EMG1-Z1: EMP1=EMP1-Z2: ILKAZ=0
9640 GOTO 9660
9650 A(N2%, 4)=A(N2%, 4)+YT: EMG2=EMG2+Z1: EMP2=EMP2+Z2: SONAZ=0
9660 M%=1
9670 GOTO 9970
9680 YV1=0: YV2=0: NYK=MYK: LS=1: SMA=0: SMB=0
9690 IF (MYK-11)<>0 THEN 9710
9700 LS=2
9710 FOR LZ=1 TO LS
9720 IF MYK<=7 THEN 9810
9730 TIPO%=12-MYK: ON TIPO% GOTO 9770, 9760, 9750, 9740
9740 YV1=YU1: YV2=YU2: GOTO 9810
9750 YV1=YU1: YV2=YU2: YU1=0: YU2=0: GOTO 9800

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9760 YV1=0:YV2=0:GOTO 9800
9770 KAR%=3-LX:ON KAR% GOTO 9780,9790
9780 Z1=W(1,5)+W(1,6)/2:YU1=YV1:YU2=YV2:YV1=0:YV
9790 Z1=W(1,5):Z2=W(1,6)/2:YV1=YU1:YV2=YU2:YU1=0:YU2=0
9800 NYK=8
9810 W(1,7)=YU1:W(2,7)=YU2:W(1,8)=YV1:W(2,8)=YV2
9820 FOR J%=1 TO 2
9830 YUJ=W(J%,7):YVJ=W(J%,8)
9840 IF YUJ<>0 THEN 9860
9850 IF YVJ=0 THEN 9930
9860 EL=E(NA):NY=NYK:YU=YUJ:YV=YVJ
9870 GOSUB 10000
9880 BE=B
9890 FOR I%=1 TO 9
9900 F(NA,I%)=F(NA,I%)+B(I%,7)
9910 NEXT I%
9920 A(NA,4)=A(NA,4)+A:D(NA)=D(NA)+BE:I%=NA+MAS%*J%-MAS%:G(I%)=G(I%)+EMA:H(I%)=H
(I%)+EMB:SMA=SMA+EMA:SMB=SMB+EMB
9930 NEXT J%
9940 NEXT L%
9950 REM
9960 GOTO 9470
9970 IF W(1,2)=15 THEN PRINT#3,TAB(8);USING "##";W(1,1);:PRINT#3,TAB(11);USING "
K&      15   Vg=##.## Vp=##.## Vq=##.## (t)           Mg=
##.## Mp=##.## Mq=##.## (tm)";KR$(W(1,1)+1),W(1,3),W(1,4),W(1,3)+W(1,4),W(1,5),W
(1,6),W(1,5)+W(1,6)
9980 AS$=" YENI YUK VERECEK MISIN ? (E/H) ":R%=22:GOSUB 14060:IF I$="E" THEN 934
0
9990 RETURN
10000 REM _____ YTP2 _____
10010 REM
10020 EL2=.5*EL:YU2=.5*YU:AL=Z1/EL:BE=1-AL:ZZ=EL-Z1:YUZ=YU*Z1:YUZZ=YU*ZZ:DX=.1*E
L:X=DX
10030 NOTAX=9-NY:ON NOTAX GOTO 10140,10110,10100,10090,10080,10070,10060,10040
10040 A=YU2*EL:EMA=1/6##*EL*A
10050 B=A:EMB=-EMA:GOTO 10250
10060 B=YU2*Z1*AL:A=YUZ-B:S=5/60##*YUZ*Z1:EMA=S*(1+BE*(2+3*BE)):EMB=-S*AL*(1+3*BE
):GOTO 10250
10070 A=YU2*BE*ZZ:B=YUZZ-A:S=5/60##*YUZZ*ZZ:EMA=S*BE*(1+3*AL):EMB=-S*(1+AL*(2+3*A
L)):GOTO 10250
10080 A=1/6##*YU*(EL+ZZ):B=YU2*EL-A:EY=1/30*YU*EL*EL:EMA=EY*(1+BE*(1+BE*(1-1.5*BE
))):EMB=-EY*(1+AL*(1+AL*(1-1.5*AL))):GOTO 10250
10090 A=YU2*ZZ:EMA=5/60*YU*(EL*EL-Z1^2*(2-AL)):GOTO 10050
10100 A=YU2:EMA=.25*A*EL:GOTO 10050
10110 A=YUZZ/EL:B=YU-A:EMA=YUZ*(ZZ/EL)^2
10120 IF ZZ=0 THEN 10210
10130 GOTO 10220
10140 DI=0:DJ=0:A=0:B=0:DY=YV-YU:YUZ2=YU*Z2:YVZ2=YV*Z2
10150 IF SGN(YU)=0 THEN 10170
10160 AA=Z1+.5*Z2:BB=EL-AA:C2=Z2*Z2:YUC=YUZ2/EL:A=YUC*BB:B=YUC*AA:DI=5/120##*A*(4
*AA*(BB+EL)-C2):DJ=5/120##*B*(4*BB*(AA+EL)-C2)

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10170 IF DY=0 THEN 10190
10180 AA=Z1+2/3##Z2:BB=EL-AA:ELT=1/EL:AL=EL*AA:BE=EL*BB:GA=EL*Z2:GK=GA*GA:CK=
.00030864197##DY*GA*EL^3:DI=DI+CK*(270*BE*(1-BE*BE)-GK*(
45*BE+GA+GA)):DJ=DJ+CK*(270*AL*(1-AL*AL)-GK*(45*AL-GA-GA)):YUC=.5*DY*Z2/EL:A=A+Y
UC*BB:B=B+YUC*AA
10190 ELT=1/EL2:EMA=(DI+DI-DJ)*ELT:EMB=(DI-DJ-DJ)*ELT:ZZ=1/3##Z2:ZK=ZZ+ZZ
10200 GOTO 10250
10210 EMB=0:GOTO 10240
10220 EMB=-EMA*Z1/ZZ
10230 IF (A*B)<>0 THEN 10250
10240 FOR I%=1 TO 9:B(I%,7)=0:NEXT I%:RETURN
10250 FOR I%=1 TO 9:ZX=Z1-X
10260 POTA%=9-NY:ON POTA% GOTO 10430,10430,10270,10270,10380,10330,10310,10270
10270 IF ABS(EL2-X)<.00001 THEN 10290
10280 IF (EL2-X)<0 THEN 10490
10290 OLA%=8-NY:ON OLA% GOTO 10430,10420,10360,10350,10330,10310,10300
10300 D=-YU2*X*X:GOTO 10500
10310 IF ZX>=0 THEN 10300
10320 D=-YUZ*(X-.5*Z1):GOTO 10500
10330 IF ZX>=0 THEN 10420
10340 D=-YU2*ZX*ZX:GOTO 10500
10350 D=-1/3##YU*X^3/EL:GOTO 10500
10360 IF ZX<0 THEN 10410
10370 D=-1/6##YU*X^3/Z1:GOTO 10500
10380 IF ZX>=0 THEN 10370
10390 ELX=EL-X
10400 B(I%,7)=1/6##YU*EL*ELX*(1-AL^2-(ELX/EL)^2)/BE:GOTO 10510
10410 D=-YU2*(Z1*(X-2/3##Z1)+ZX*ZX):GOTO 10500
10420 D=0:GOTO 10500
10430 IF ZX>=0 THEN 10420
10440 IF (NY-B)<>0 THEN 10480
10450 IF (ZX+Z2)<=0 THEN 10470
10460 D=-.5*ZX*ZX*(YU-1/3##DY*ZX/Z2):GOTO 10500
10470 D=.5*((ZX+Z2)*YUZ2+(ZX+ZK)*YVZ2):GOTO 10500
10480 D=YU*ZX:GOTO 10500
10490 QGM%=10-I%:B(I%,7)=B(QGM%,7):GOTO 10510
10500 B(I%,7)=A*X+D
10510 X=X+DX
10520 NEXT I%
10530 RETURN
10540 REM _____SUB03_____
10550 REM YJK MOMENTLERI VE BASIT KIRIS MESNET TEPKILERI
10560 IF IP<=0 THEN 10670
10570 FOR I%=2 TO N1%
10580 PRINT USING "##.### ##.### ";G(I%),H(I%);
10590 NEXT I%:PRINT
10600 FOR I%=2 TO N1%
10610 PRINT USING "##.### ##.### ";G(I%+12),H(I%+12);
10620 NEXT I%:PRINT
10630 FOR I%=2 TO N1%
10640 PRINT USING "##.### ##.### ";A(I%,4),D(I%);
10650 NEXT I%:PRINT
10660 CLS:PRINT "BASLANGIC MOMENTLERI (tm) : "
10670 FOR I%=1 TO N1%
10680 C(I%,N2%)=0:M(I%,1)=0:NEXT I%

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10690 FOR K%=1 TO N1%
10700 FOR I%=2 TO N1%
10710 IF K%(K%,I%-1)<>"G" THEN 10730
10720 C(K%,I%)=G(I%):M(K%,I%)=H(I%):GOTO 10740
10730 C(K%,I%)=G(I%)+G(I%+12):M(K%,I%)=H(I%)+H(I%+12)
10740 NEXT I%
10750 IF IP<=0 THEN 10780
10760 PRINT K%
10770 FOR I%=2 TO N1%:PRINT USING "##.### ##.### ";C(K%,I%),M(K%,I%);:NEXT I%:F
RINT
10780 FOR I%=1 TO N1%
10790 B(I%,K%)=M(K%,I%)+C(K%,I%+1)
10800 NEXT I%
10810 NEXT K%
10820 IF IP<=0 THEN 10890
10830 PRINT "DENKLEM TAKIMI"
10840 FOR K%=1 TO N1%
10850 PRINT USING "##.### ##.### ";P(K%,4),P(K%,3);
10860 FOR I%=1 TO N1%
10870 PRINT USING "##.### ";B(K%,I%);
10880 NEXT I%:PRINT:NEXT K%
10890 FOR J%=1 TO N1%
10900 B(1,J%)=B(1,J%)/P(1,4)
10910 NEXT J%
10920 FOR I%=2 TO N1%
10930 P(I%,4)=P(I%,4)-ABS(P(I%-1,3))^2/P(I%-1,4)
10940 FOR J%=1 TO N1%
10950 B(I%,J%)=(B(I%,J%)-B(I%-1,J%)*P(I%-1,3))/P(I%,4)
10960 NEXT J%
10970 P(I%-1,3)=P(I%-1,3)/P(I%-1,4)
10980 NEXT I%
10990 FOR I%=2 TO N1%
11000 K%=N1%-I%+1
11010 FOR J%=1 TO N1%
11020 B(K%,J%)=B(K%,J%)-B(K%+1,J%)*P(K%,3)
11030 NEXT J%
11040 NEXT I%
11050 IF IP<=0 THEN RETURN
11060 PRINT "DONMELER"
11070 FOR K%=1 TO N1%
11080 PRINT K%
11090 FOR I%=1 TO N1%:PRINT USING "##.### ";B(K%,I%);:NEXT I%:PRINT:NEXT K%
11100 RETURN
11110 REM _____SUBS3_____
11120 Y(1,1)=0:Y(1,2)=0
11130 FOR K%=1 TO N1%
11140 FOR I%=2 TO N1%
11150 Y(I%,1)=-A(I%,1)*(2*B(I%-1,K%)+B(I%,K%))+C(K%,I%)
11160 Y(I%,2)=-A(I%,1)*(2*B(I%,K%)+B(I%-1,K%))+M(K%,I%)
11170 NEXT I%
11180 FOR I%=1 TO N1%
11190 IF (I1%-1)=0 THEN 11220
11200 IF (I1%-1)>0 THEN 11240
11210 Z(I%,1)=-2*P(I%,1)*B(I%,K%)
11220 Z(I%,2)=-2*P(I%,2)*B(I%,K%)
11230 NEXT I%

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11240 IF K%>=3 THEN 11400
11250 IF K%=2 THEN 11270
11260 A(2,2)=A(2,4)+(Y(2,1)+Y(2,2))/E(2)
11270 MM%=K%+1
11280 IF (N1%-MM%)<0 THEN RETURN
11290 FOR I%=MM% TO N1% STEP 2
11300 K(I%,1)=Y(I%,1):K(I%,2)=Y(I%,2)
11310 NEXT I%
11320 FOR I%=1 TO N1%
11330 IF (I1%-1)=0 THEN 11360
11340 IF (I1%-1)>0 THEN 11380
11350 I(I%,K%)=Z(I%,1)
11360 J(I%,K%)=Z(I%,2)
11370 NEXT I%
11380 IF (N%+K%-INT((N%+K%)/2)*2)<>0 THEN 11430
11390 MM%=N1%:GOTO 11420
11400 MM%=K%-1
11410 L(K%,1)=Y(K%,1):L(MM%,2)=Y(MM%,2):A(K%,2)=A(K%,4)+(Y(K%,1)+Y(K%,2))/E(K%)
11420 A(MM%,3)=-D(MM%)+(Y(MM%,1)+Y(MM%,2))/E(MM%)
11430 IF IP<0 THEN 11540
11440 PRINT K%;". YUKLEME"
11450 FOR I%=1 TO N%:PRINT USING " &      ";K$(K%,I%);:NEXT I%:PRINT
11460 IF (I1%-1)=0 THEN 11500
11470 IF (I1%-1)>0 THEN 11520
11480 FOR I%=1 TO N1%:PRINT USING "##.### ";Z(I%,1);
11490 NEXT I%:PRINT
11500 FOR I%=1 TO N1%:PRINT USING "##.### ";Z(I%,2)
11510 NEXT I%:PRINT
11520 FOR I%=2 TO N1%:PRINT USING "##.### ##.### ";Y(I%,1),Y(I%,2);
11530 NEXT I%:PRINT
11540 NEXT K%:RETURN
11550 REM _____SUBT3_____
11560 DEF FNX(X,Y,T)=(1-A)*X-A*Y-10*A*T
11570 L(2,1)=K(2,1):L(N1%,2)=K(N1%,2)
11580 IF (N%-1)=0 THEN 11620
11590 FOR I%=2 TO N%
11600 Z(I%,3)=-A(I%,3)+A(I%+1,2)
11610 NEXT I%
11620 Z(N1%,3)=-A(N1%,3)
11630 PRINT#3,TAB(8);STRING$(129,"-")
11640 PRINT#3,TAB(8);"KESME KUVVETLER";CHR$(173);" Q(t) : "
11650 FOR I%=2 TO N1%:AZ=8+(I%-2)*20:AZ=AZ MOD 120
11660 PRINT#3,TAB(AZ);USING "+##.## K& +##.##";A(I%,2);KR$(I%);A(I%,3);
11670 NEXT I%
11680 PRINT#3,TAB(8);STRING$(129,"-")
11690 PRINT#3,TAB(8);"MESNET TEPK";CHR$(173);"LER";CHR$(173);" R(t) : "
11700 IF I1%<=1 THEN PRINT#2,TAB(8);"MESNET TEPKILERI R(t) : "
11710 PRINT#3,TAB(8);USING "##.## ";A(2,2);
11720 IF I1%<=1 THEN PRINT#2,TAB(8);USING "##.## ";A(2,2);
11730 FOR I%=2 TO N1%:AZ=14+(I%-2)*14:AZ=AZ MOD 132
11740 IF I1%<=1 THEN PRINT#2,USING " K& ##.## ";KR$(I%);Z(I%,3);
11750 PRINT#3,TAB(AZ);USING " K& ##.## ";KR$(I%);Z(I%,3);:NEXT I%
11760 PRINT#3,TAB(8);STRING$(129,"-")
11770 PRINT#3,TAB(8);"MESNET MOMENTLER";CHR$(173);" X(tm) : "
11780 FOR I%=2 TO N1%:AZ=8+(I%-2)*20:AZ=AZ MOD 120
11790 PRINT#3,TAB(AZ);USING "+##.## K& +##.##";L(I%,1);KR$(I%);L(I%,2);:NEXT I%

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11800 IF (I1%-1)>0 THEN 11910
11810 FOR I%=2 TO N1%
11820 F=.005/E(I%):A=P(I%-1,5)*F:ARA1=L(I%,1):ARA2=L(I%,2):ARA3=F(I%,1):X1=FNX(A
RA1,ARA2,ARA3)
11830 A=P(I%,5)*F:ARA1=L(I%,2):ARA2=L(I%,1):ARA3=-F(I%,9):X2=FNX(ARA1,ARA2,ARA3)
11840 L(I%,1)=X1:L(I%,2)=X2
11850 NEXT I%
11860 PRINT#3,TAB(8);STRING$(129,"-")
11870 PRINT#3,TAB(8);"D";CHR$(154);"ZELT";CHR$(173);"LM";CHR$(173);"S MESNET MOM
ENTLER";CHR$(173);" X'(tm) : "
11880 FOR I%=2 TO N1%:AZ=8+(I%-2)*20:AZ=AZ MOD 120
11890 PRINT#3,TAB(AZ);USING "+###.### K% +###.###";L(I%,1);KR$(I%);L(I%,2);
11900 NEXT I%
11910 IF JD%<=0 THEN 11970
11920 PRINT#3,TAB(8);STRING$(129,"-")
11930 PRINT#3,TAB(8);"DEPREM MOMENTLER";CHR$(173);" Mz(tm) : "
11940 FOR I%=2 TO N1%:AZ=8+(I%-2)*20:AZ=AZ MOD 120
11950 PRINT#3,TAB(AZ);USING "+###.### K% +###.###";Q(I%,1);KR$(I%);Q(I%,2);
11960 NEXT I%
11970 IF JR%<=0 THEN RETURN
11980 FOR I%=2 TO N1%:FOR J%=1 TO 2
11990 PRINT USING "###.### ";R(I%,J%);
12000 NEXT J%:NEXT I%:PRINT
12010 RETURN
12020 REM _____ SUBO4 _____
12030 N3%=N%+3
12040 IF IP<=0 THEN 12150
12050 FOR I%=2 TO N1%
12060 PRINT USING "+###.### +###.### ";S(I%),H(I%);
12070 NEXT I%:PRINT
12080 FOR I%=2 TO N1%
12090 PRINT USING "+###.### +###.### ";S(I%+12);H(I%+12);
12100 NEXT I%:PRINT
12110 FOR I%=2 TO N1%
12120 PRINT USING "+###.### +###.### ";A(I%,4);D(I%);
12130 NEXT I%:PRINT
12140 PRINT "BASLANISIC MOMENTLERI (tm) : "
12150 FOR K%=1 TO N3%
12160 C(K%,N2%)=0:M(K%,1)=0:NEXT K%
12170 FOR K%=1 TO N3%
12180 FOR I%=2 TO N1%
12190 IF K$(K%,I%)<>"S" THEN 12210
12200 C(K%,I%)=S(I%):M(K%,I%)=H(I%):GOTO 12220
12210 C(K%,I%)=S(I%)+S(I%+12):M(K%,I%)=H(I%)+H(I%+12)
12220 NEXT I%
12230 IF K$(K%,1)="S" THEN 12250
12240 M(K%,1)=EMF1
12250 M(K%,1)=M(K%,1)+EMG1
12260 IF K$(K%,N2%)="S" THEN 12280
12270 C(K%,N2%)=EMF2
12280 C(K%,N2%)=C(K%,N2%)+EMG2
12290 IF IP<=0 THEN 12340
12300 PRINT K%
12310 FOR I%=1 TO N1%
12320 PRINT USING "###.### ##.### ";M(K%,I%),C(K%,I%+12);

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12330 NEXT I%:PRINT
12340 FOR I%=1 TO N1%
12350 B(I%,K%)=M(K%,I%)+C(K%,I%+1)
12360 NEXT I%:NEXT K%
12370 IF IP<=0 THEN 12440
12380 PRINT "DENKLEM TAKIMI"
12390 FOR K%=1 TO N1%
12400 PRINT USING "###.###  ###.### ";P(K%,4),P(K%,3);
12410 FOR I%=1 TO N3%
12420 PRINT USING "{###.###} ";B(K%,I%);
12430 NEXT I%:PRINT:NEXT K%
12440 FOR J%=1 TO N3%
12450 B(1,J%)=B(1,J%)/P(1,4)
12460 NEXT J%
12470 FOR I%=2 TO N1%
12480 P(I%,4)=P(I%,4)-ABS(P(I%-1,3))^2/P(I%-1,4)
12490 FOR J%=1 TO N3%
12500 B(I%,J%)=(B(I%,J%)-B(I%-1,J%)*P(I%-1,3))/P(I%,4)
12510 NEXT J%
12520 P(I%-1,3)=P(I%-1,3)/P(I%-1,4)
12530 NEXT I%
12540 FOR I%=2 TO N1%
12550 K%=N1%-I%+1
12560 FOR J%=1 TO N3%
12570 B(K%,J%)=B(K%,J%)-B(K%+1,J%)*P(K%,3)
12580 NEXT J%:NEXT I%
12590 IF IP<=0 THEN RETURN
12600 PRINT "DONMELER"
12610 FOR K%=1 TO N1%
12620 PRINT " _____ "
12630 PRINT "  FI ==> ";K%
12640 PRINT " _____ "
12650 FOR I%=1 TO N3%
12660 PRINT USING "###.### ";B(I%,K%);
12670 NEXT I%:PRINT:NEXT K%
12680 RETURN
12690 REM _____ SUBS4 _____
12700 Y(1,1)=0:Y(N2%,2)=0
12710 FOR K%=1 TO N3%
12720 Y(1,2)=M(K%,1):Y(N2%,1)=C(K%,N2%)
12730 FOR I%=2 TO N1%
12740 Y(I%,1)=-A(I%,1)*(2*B(I%-1,K%)+B(I%,K%))+C(K%,I%)
12750 Y(I%,2)=-A(I%,1)*(2*B(I%,K%)+B(I%-1,K%))+M(K%,I%)
12760 NEXT I%
12770 FOR I%=1 TO N1%
12780 IF (I1%-1)=0 THEN 12810
12790 IF (I1%-1)>0 THEN 12830
12800 Z(I%,1)=-2*P(I%,1)*B(I%,K%)
12810 Z(I%,2)=-2*P(I%,2)*B(I%,K%)
12820 NEXT I%
12830 IF K%>=3 THEN 12960
12840 M%=4-K%
12850 FOR I%=M% TO N1% STEP 2
12860 K(I%,1)=Y(I%,1):K(I%,2)=Y(I%,2)
12870 NEXT I%
12880 M%=M%-1
12890 FOR I%=1 TO N1%

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12900 IF (I1%-1)=0 THEN 12930
12910 IF (I1%-1)>0 THEN 13000
12920 I(I%,M%)=Z(I%,1)
12930 J(I%,M%)=Z(I%,2)
12940 NEXT I%
12950 GOTO 13000
12960 K1%=K%-1
12970 M%=K%-2
12980 L(K1%,1)=Y(K1%,1):L(M%,2)=Y(M%,2):A(K1%,2)=A(K1%,4)+(Y(K1%,1)+Y(K1%,2))/E(K1%)
12990 A(M%,3)=-D(M%)+(Y(M%,1)+Y(M%,2))/E(M%)
13000 IF IP<0 THEN 13160
13010 PRINT TAB(5);K%:". YUKLEME ==>";
13020 FOR I%=1 TO N%
13030 PRINT USING " & ";K%(K%,1);
13040 NEXT I%:PRINT
13050 IF (I1%-1)=0 THEN 13100
13060 IF (I1%-1)>0 THEN 13130
13070 FOR I%=1 TO N1%
13080 PRINT USING "###.### ";Z(I%,1);
13090 NEXT I%:PRINT
13100 FOR I%=1 TO N1%
13110 PRINT USING "###.### ";Z(I%,2);
13120 NEXT I%:PRINT
13130 FOR I%=1 TO N1%
13140 PRINT USING "###.### ###.### ";Y(I%,2),Y(I%+1,1);
13150 NEXT I%:PRINT
13160 NEXT K%
13170 RETURN
13180 REM _____SUBT4_____
13190 DEF FN(X,Y,T)=(1-A)*X-A*Y-10*A*T
13200 L(1,2)=M(1,1):L(N2%,1)=C(N3%,N2%):A(1,3)=-D(1):A(N2%,2)=A(N2%,4)
13210 FOR I%=1 TO N1%
13220 Z(I%,3)=-A(I%,3)+A(I%+1,2)
13230 NEXT I%
13240 PRINT#3,TAB(8);STRING$(129,"-")
13250 PRINT#3,TAB(8);"KESME KUVVETLER";CHR$(173);" Q(t) ";IF ILKA%=0 THEN PRINT
#3,TAB(8);"K";KR$(1);USING " ###.##";A(1,3);
13260 FOR I%=2 TO N1%:AZ=(20-ILKA%*12)+(I%-2)*20:AZ=AZ MOD 120
13270 PRINT#3,TAB(AZ);USING "###.## K% ###.##";A(I%,2);KR$(I%);A(I%,3);
13280 NEXT I%:IF SONAZ=0 THEN PRINT#3,USING " ###.## K%";A(N1%+1,2);KR$(N1%+1)
13290 PRINT#3,TAB(8);STRING$(129,"-")
13300 PRINT#3,TAB(8);"MESNET TERK";CHR$(173);"LER";CHR$(173);" R(t) ";IF ILKA%=
0 THEN PRINT#3,TAB(8);"K";KR$(1);
13310 IF I1%<=1 THEN PRINT#2,TAB(8);"MESNET TERKILERI R(t) ";IF ILKA%=0 THEN PR
INT#2,TAB(8);"K";KR$(1);
13320 PRINT#3,TAB(14-ILKA%*6);USING "###.## ";Z(1,3);FOR I%=2 TO N1%:AZ=(21-ILKA
%*7)+(I%-2)*14:AZ=AZ MOD 132
13330 IF I1%<=1 THEN PRINT#2,USING "###.## ";Z(1,3);
13340 PRINT#3,TAB(AZ);USING " K% ###.##";KR$(I%);Z(I%,3);
13350 IF I1%<1 THEN PRINT#2,USING " K% ###.##";KR$(I%);Z(I%,3);
13360 NEXT I%:IF SONAZ=0 THEN PRINT#3," K";KR$(N1%+1)
13370 IF SONAZ=0 THEN IF I1%<=1 THEN PRINT#2," K";KR$(N1%+1)
13380 PRINT#3,TAB(8);STRING$(129,"-")

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```

13390 PRINT#3, TAB(8); "MESNET MOMENTLER"; CHR$(173); " X(tm)"; IF ILKA%=0 THEN PRINT#3, TAB(8); KR$(1); USING "###.###"; L(1, 2);
13400 FOR I%=2 TO N1%; AZ=(21-ILKA%*13)+(I%-2)*20; AZ=AZ MOD 120
13410 PRINT#3, TAB(AZ); USING "###.### K& +###.###"; L(I%, 1); KR$(I%); L(I%, 2);
13420 NEXT I%; IF SONA%=0 THEN PRINT#3, USING "###.### K&"; L(N1%+1, 1); KR$(N1%+1)
13430 IF (I1%-1)>0 THEN 13550
13440 FOR I%=2 TO N1%
13450 F=.005/E(I%); A=P(I%-1, 5)*F; ARA1=L(I%, 1); ARA2=L(I%, 2); ARA3=F(I%, 1); X1=FNX(ARA1, ARA2, ARA3)
13460 A=P(I%, 5)*F
13470 ARA1=L(I%, 2); ARA2=L(I%, 1); ARA3=-F(I%, 9); X2=FNX(ARA1, ARA2, ARA3)
13480 L(I%, 1)=X1; L(I%, 2)=X2
13490 NEXT I%
13500 PRINT#3, TAB(8); STRING$(129, "-")
13510 PRINT#3, TAB(8); "D"; CHR$(154); "ZELT"; CHR$(173); "LM"; CHR$(173); "S MESNET MOMENTLER"; CHR$(173); " X'(tm)"; IF ILKA%=0 THEN PRINT#3, TAB(8); "K"; KR$(1); USING "###.###"; L(1, 2);
13520 FOR I%=2 TO N1%; AZ=(21-ILKA%*13)+(I%-2)*20; AZ=AZ MOD 120
13530 PRINT#3, TAB(AZ); USING "###.### K& +###.###"; L(I%, 1); KR$(I%); L(I%, 2);
13540 NEXT I%; IF SONA%=0 THEN PRINT#3, USING "###.### K&"; L(N1%+1, 1); KR$(N1%+1)
13550 IF JDZ<=0 THEN 13610
13560 PRINT#3, TAB(8); STRING$(129, "-")
13570 PRINT#3, TAB(8); "DEPREM MOMENTLER"; CHR$(173); " Mz(tm)";
13580 FOR I%=2 TO N1%; AZ=8+(I%-2)*20; AZ=AZ MOD 120
13590 PRINT#3, TAB(AZ); USING "###.### K& +###.###"; Q(I%, 1); KR$(I%); Q(I%, 2);
13600 NEXT I%
13610 IF JRZ<=0 THEN RETURN
13620 FOR I%=2 TO N1%; FOR J%=1 TO 2
13630 PRINT USING "###.### "; R(I%, J%);
13640 NEXT J%; NEXT I%; PRINT
13650 RETURN
13660 REM _____ SUBFN _____
13670 IF (I1%-1)=0 THEN 13740
13680 IF (I1%-1)>0 THEN 13810
13690 PRINT#3, TAB(8); STRING$(129, "-")
13700 PRINT#3, TAB(8); CHR$(154); "ST KOLON MOMENT"; CHR$(173); " MAX/M"; CHR$(173); " N (tm)";
13710 FOR I%=1 TO N1%; AZ=8+(I%-1)*22; AZ=AZ MOD 132
13720 PRINT#3, TAB(AZ); USING "###.### S& +###.###"; I(I%, 1); SS$(1, I%); I(I%, 2);
13730 NEXT I%
13740 PRINT#3, TAB(8); STRING$(129, "-")
13750 PRINT#3, TAB(8); "ALT KOLON MOMENT"; CHR$(173); " MAX/M"; CHR$(173); " N (tm)";
13760 PRINT#2, TAB(8); "ALT KOLON MOMENTI MAX/MIN (tm)"; PRINT#2, TAB(8); " ";
13770 FOR I%=1 TO N1%; AZ=8+(I%-1)*22; AZ=AZ MOD 132
13780 PRINT#3, TAB(AZ); USING "###.### S& +###.###"; J(I%, 1); SS$(2, I%); J(I%, 2);
13790 PRINT#2, USING "###.### S& +###.###"; J(I%, 1); SS$(2, I%); J(I%, 2);
13800 NEXT I%
13810 FOR I%=2 TO N1%
13820 D=.1*(K(I%, 1)+K(I%, 2))
13830 DX=-K(I%, 1)
13840 FOR J%=1 TO 9
13850 DX=DX+D
13860 F(I%, J%)=F(I%, J%)+DX
13870 NEXT J%

```

```

13880 EMX=F(I%,1)
13890 M%=1
13900 FOR J%=2 TO 9
13910 IF (EMX-F(I%,J%))>=0 THEN 13940
13920 EMX=F(I%,J%)
13930 M%=J%
13940 NEXT J%
13950 A(I%,1)=EMX:Z(I%,3)=M%
13960 NEXT I%
13970 PRINT#3,TAB(8);STRING$(129,"-")
13980 PRINT#3,TAB(8);"MAX. A";CHR$(128);"IKLIK MOMENT";CHR$(173);" M(m) ve YER
;CHR$(173);" x(m) : "
13990 FOR I%=2 TO N1%:AZ=8+(I%-2)*13:AZ=AZ MOD 130
14000 PRINT#3,TAB(AZ);USING "K% ##.###";KR$(I%);A(I%,1);
14010 NEXT I%
14020 FOR I%=2 TO N1%:AZ=11+(I%-2)*13:AZ=AZ MOD 117
14030 PRINT#3,TAB(11+(I%-2)*13);USING "x###.###";Z(I%,3)*E(I%)/10;
14040 NEXT I%
14050 RETURN
14060 I$=INKEY$
14070 KEY OFF:LOCATE 25,R%:COLOR 0,7:PRINT A$
14080 IF I$="E" OR I$="H" OR I$="S" OR I$="N" OR I$="C" THEN COLOR 7,0:KEY ON:RE
TURN
14090 GOTO 14060
14100 OPEN "D",#1,FL$:RETURN
14110 RETURN
14120 CLS:LOCATE 10,15:PRINT "YUK TIPLERI SU ANDA YOK , NOTLARDAN BAKINIZ,,,,,";
RETURN
14130 SI$=CHR$(229):US$=CHR$(129):AT$="Ma+##.## "+SI$+"ba## "+SI$+"e'a="+"###
# Fealt=##.##":ML$="Q+##.## "+CHR$(231)+"o=##.# "
14140 US$="M"+US$+"=##.## "+SI$+"b"+US$+"## "+SI$+"e'+US$+"#### Fe"+US$+"s=##
.##"
14150 PRINT#3,TAB(80);" ":PRINT#3,TAB(50);CHR$(14);CHR$(15);"***** DONATI HESAPL
ARI *****"
14160 DEF FNALFA(K,S)=ATN(-SGR(27*(10000/(K*S)+1/3))^(3-1))
14170 PRINT#3,TAB(40);"Moment=(t) Kesme Kuvveti=(t) Gerilmeler=(kg/cm";:B
OSUB 15420:PRINT#3,")";:PRINT#3,TAB(103);"Fe=(cm";:BOSUB
15420:PRINT#3,")"
14180 DEF FNKAZ(K,A,S)=2/3+2*SGR(10000/(K*S)+1/3)*COS(A/3+6*PI/3)/SGR(3)
14190 PI#=4*ATN(1):IF SOL$="H" THEN 14200
14200 PRINT#3,TAB(8);STRING$(129,"-");AZ$="2";TU$=CHR$(231):US$=CHR$(129):SI$=CHR
$(229):SECS$="Se"+CHR$(135)+"ilen="
14210 B0=IN(1,1):D0=IN(1,2):B=IN(1,3):D=IN(1,4):SB1=XN*1000:SE1=XE*1000:IF B=0 AND D
=0 THEN SB1=XD*1000
14220 IF I12=2 THEN 14230 ELSE DDK=F(1,5)*D(1)/100:MD=L(1,2)*100+ABS(DDK):DDK=D(
1)/KON1*P(1,5)/100:QD=-D(1)+ABS(DDK):BOSUB 14210:GOTO 14
240
14230 MD=L(1,2)*100:QD=-D(1):BOSUB 14210
14240 QAZ=MD/100:QAZ1=SI8:QAZ7=SE11:QAZ71=FEALT:QAZ3=FEUST:QAZ5=0:QAZ1=0:QAZ2=0:QB
21=QD:QB22=TD
14250 PRINT#3,TAB(92);USING US$;QAZ1;QAZ71;QAZ7;QAZ3;
14260 PRINT#3,TAB(119);"Secilen=,,";
14270 PRINT#3,TAB(84);"X";KR$(1);TAB(97);USING ML$;QB21;QB22;:PRINT#3,"Elr;
";:PRINT#3,TAB(123);"S46 KESNET"

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```

14280 PRINT#3, TAB(92); USING AT#:0,0,0,QA23;
14290 PRINT#3, TAB(119); SEC#
14300 CLS:GOTO 14570
14310 MD=ABS(MD):H1=DO-PP:K=B0*H1^2/MD:ALFA=FNALFA(K,SE1)
14320 IF ALFA<0 THEN ALFA=ALFA+PI#
14330 KZ=FNKAZ(K,ALFA,SE1):KX=(1-KZ)*3
14340 SIB=SE1/((1/KX-1)*15):IF SIB<=SB1 THEN 14390 ELSE KX=1/(SE1/SB1/15+1):KZ=
(1-KX/3)
14350 K1=2000/(KX*SB1*(1-KX/3)):M1=B0*H1^2/K1:GAMA=1-PP/H1:SE11=15*SB1*(1+(GAMA=
1)/KX)
14360 DM=MD-M1:FEU=DM/(SE11/1000*(H1-PP)):FE1=M1/(SE1*KZ*H1/1000):FEALT=FE1+DM/
SE1*(H1-PP)/1000:FEUST=FEU:SIB=SB1:T0=ABS(QQ)*1000/(B0*
KZ*H1):IF T0<1 THEN T0=1
14370 IF MD>0 THEN 14400 ELSE FEUST=FEALT:FEALT=FEU:GOTO 14400
14380 SE11=0:FEALT=MD/(SE1*KZ*H1/1000):FEUST=0:T0=ABS(QQ)*1000/(B0*KZ*H1):IF T0<
1 THEN T0=1
14390 IF MD>0 THEN 14400 ELSE FEUST=FEALT:FEALT=0
14400 PRINT USING "K=####.## cm^2/t kz=###.### gb=### kg/cm^2 To=## kg/cm^2 h1
'##### kg/cm^2":K,KZ,CHR$(229),SIB,T0,CHR$(229),SE11
14410 PRINT USING "FeAlt=##.## cm^2 FeUst=##.## cm^2 ":FEALT,FEUST
14420 RETURN
14430 REM TABLALI KESIT
14440 H1=DO-PP
14450 KZ3=1-(1/(SE1/SBA1/15+1))/3:KX=(1-KZ3)*3:XX=KX*H1
14460 BI=B-(B-B0)*(1-D/XX)^2:K1=2000/(KX*KZ3*SBA1):M1=BI*H1^2/K1:FE1=M1/(SE1*KZ3
*H1/1000)
14470 IF M1<MD THEN 14540
14480 K=B*H1^2/MD
14490 ALFA=FNALFA(K,SE1):IF ALFA<0 THEN ALFA=ALFA+PI#
14500 KZ=FNKAZ(K,ALFA,SE1):KX=(1-KZ)*3
14510 SIB=SE1/((1/KX-1)*15)
14520 FEALT=MD/(SE1*KZ*H1/1000):FEUST=0:T0=ABS(QQ)*1000/(B0*KZ*H1):IF T0<1 THEN
T0=1
14530 SE11=0:GOTO 14400
14540 C=H1-PP:BA=C/H1:SE11=15*SBA1*(1+(BA-1)/KX):DM=MD-M1:T0=ABS(QQ)*1000/(KZ3*H
1*B0):IF T0<1 THEN T0=1
14550 FEUST=DM/(SE11*C/1000):FE2=DM/(SE1*C/1000):FEALT=FE1+FE2
14560 K=K1:KZ=KZ3:SIB=SBA1:GOTO 14400
14570 REM DIM
14580 GB=1000*XD:SBA1=1000*XB:SBM=1000*XM:SE1=XE*1000
14590 FOR RR2=2 TO ND1:K#="K"+KR$(RR%):B0=S(RR%):D0=T(RR%):B=U(RR%):D=V(RR%)
14600 PRINT "SOL MESNET KESIT1:"
14610 GOSUB 15620
14620 ME=-L(RR2,1):MB=MK:MD1=MK:MD2=MB:MA=MK:MD=MK:IF JB#0 THEN 14720
14630 ME=Q(RR2,1):QE=(Q(RR2,2)-Q(RR2,1))/E(RR%)
14640 DE=QE*F(RR2-1,5)/200:ME=ME+DE
14650 MD1=(MD1-ABS(MDE))*CD:MD2=(MD2+ABS(MDE))*CD
14660 MD=MD1:IF MD>MD2 THEN MD=MD2
14670 IF MD>MD2 THEN MD=MD2
14680
14690 MA=MD1:IF MA<MD2 THEN MA=MD2
14700 IF MA<MD2 THEN MA=MD2

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,B12;:PRINT#3,"Etr: _____";
15230 PRINT#3,TAB(68);"A";CHR$(128);"IKLIK";TAB(93);USING ML$;B21,B22;:PRINT#3,"
Etr: _____";:PRINT#3,TAB(123);"SAG MESNET"
15240 PRINT#3,TAB(8);USING AT$;A4,A41,A42,A43;
15250 PRINT#3," ";USING AT$;A5,A51,A52,A53;
15260 PRINT#3," ";USING AT$;A6,A61,A62,A63;
15270 PRINT#3,TAB(35);SEC#;:PRINT#3,TAB(77);SEC#;:PRINT#3,TAB(119);SEC#
15280 IF RR% MOD (ER%+1)=0 THEN CLS:PRINT "DEVAM ICIN YAZICIYI AYARLAYINIZ....!"
":STOP
15290 NEXT RR%
15300 PRINT#3,TAB(8);STRING$(129,"-")
15310 IF SAG#="H" THEN 15410 ELSE B0=N(N1%+1,1):D0=N(N1%+1,2):B=N(N1%+1,3):D=N(N
1%+1,4):SB1=XN*1000:SE1=XE*1000:IF B=0 AND D=0 THEN SB1=
XD*1000
15320 IF I1%=2 THEN 15330 ELSE DMK=F(N1%,5)*A(N2%,4)/100:MD=-L(N1%+1,1)*100+ABS(
DMK):DQK=A(N2%,4)/KON2*P(N1%,5)/100:QQ=A(N2%,4)-ABS(DQK)
:GOSUB 14310:GOTO 15340
15330 MD=-L(N1%+1,1)*100:QQ=A(N2%,4):GOSUB 14310
15340 QA2=MD/100:QA21=SIB:QA22=SE11:QA23=FEALT:QA43=FEUST:QA5=0:QA51=0:QA52=0:QB
21=QQ:QB22=T0
15350 PRINT#3,TAB(8);USING US$;QA2,QA21,QA22,QA43;
15360 PRINT#3,TAB(35);SEC#
15370 PRINT#3,TAB(8);"K";KR$(N1%+1);" SOL MESNET ";USING ML$;QB21,QB22;:PRI
NT#3,"Etr: _____"
15380 PRINT#3,TAB(8);USING AT$;0,0,0,QA23;
15390 PRINT#3,TAB(35);SEC#
15400 PRINT#3,TAB(8);STRING$(129,"-")
15410 RETURN
15420 A2#="2"
15430 PRINT#3,CHR$(27);"S";CHR$(0);CHR$(15);"2";CHR$(27);"T";CHR$(18);CHR$(15);:
GOTO 15450
15440 PRINT#3,CHR$(27);"S";CHR$(0);CHR$(15);"4";CHR$(27);"T";CHR$(18);CHR$(15);
15450 RETURN
15460 WIDTH #3,255:PRINT#3," ":PRINT#3,TAB(8);CHR$(14);CHR$(15);"*****
K";CHR$(173);"R";CHR$(173);"S STAT";CHR$(173);"K & DO
NATI HESAPLARI *****"
15470 PRINT#3,TAB(8);"G";CHR$(154);"VENL";CHR$(173);"K GER";CHR$(173);"LMELER";C
HR$(173);" (kg/cm";CHR$(253);")";
15480 PRINT#3,TAB(67);" G";CHR$(154);"VENL";CHR$(173);"K KATSAYILARI :";
15490 PRINT#3,TAB(8);"-----";
15500 PRINT#3,TAB(67);"-----"
15510 PRINT#3,TAB(8);"TABLALI KES";CHR$(173);"T A";CHR$(128);"IKLIK ";CHR$(2
29);"b =" ;XB;
15520 PRINT#3,TAB(67);"DEPREM G";CHR$(154);"VENL";CHR$(173);"K KATSAYISI
=" ;CD
15530 PRINT#3,TAB(8);"TABLALI KES";CHR$(173);"T MESNET ";CHR$(229);"b ="
;XN;
15540 PRINT#3,TAB(67);"R";CHR$(154);"ZGAR G";CHR$(154);"VENL";CHR$(173);"K KATSA
YISI =" ;CR
15550 PRINT#3,TAB(8);"D";CHR$(173);"KD";CHR$(153);"RTGEN KES";CHR$(173);"T
";CHR$(229);"b =" ;XD;
15560 PRINT#3,TAB(67);"ANKASTREL";CHR$(173);"K KATSAYISI =" ;EF
15570 PRINT#3,TAB(8);CHR$(128);"EL";CHR$(173);"K G";CHR$(154);"VENL";CHR$(173);"
K GER";CHR$(173);"LMES"CHR$(173);" ";CHR$(229);"e ="
;XE;

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15580 PRINT#3,TAB(67);"PAS PAYI (cm)           " ;PF
15590 PRINT#3,TAB(8);CHR$(27);"S";CHR$(9);CHR$(15);"BU program 100,y";CHR$(129);
"K.M";CHR$(129);"h.Servet S";CHR$(129);"ha SARIAK";CHR$(
128);"ALI TARAFINDAN SER";
15600 PRINT#3,CHR$(173);"FOGLU M";CHR$(154);"HEM";CHR$(173);"SL";CHR$(173);"M Y
E M";CHR$(173);"MARLIK ";CHR$(173);CHR$(128);CHR$(173);"
N HAZIRLANMISTIR...":LPRINT CHR$(27);"T";CHR$(18);CHR$(15);
15610 RETURN
15620 A1=0:A11=0:A12=0:A13=0:A2=0:A21=0:A22=0:A23=0:A3=0:A31=0:A32=0:A33=0
15630 A4=0:A41=0:A42=0:A43=0:A5=0:A51=0:A52=0:A53=0:A6=0:A61=0:A62=0:A63=0
15640 RETURN
15650 A1=0:A11=0:A12=0:A13=0
15660 A4=0:A41=0:A42=0:A43=0
15670 RETURN
15680 A2=0:A21=0:A22=0:A23=0
15690 A5=0:A51=0:A52=0:A53=0
15700 RETURN
15710 A3=0:A31=0:A32=0:A33=0
15720 A6=0:A61=0:A62=0:A63=0
15730 RETURN
15740 SIB=0:SE11=0:FEUST=0:FEALT=0:RETURN

16000 "KOLDON BETONARME HESAPLARI
16010 DEF FN(A,D)=2*SQRT(-A/3)*COS(D/3)+CLS+ABS=" BASLIK YAZILACAK MI ? (E/H) ";
GOSUB 17800:BAŞ=11#
16020 CLS:AB=" ISIN ADI YAZILACAK MI ? (E/H) ";GOSUB 17800:15#11#1F 11#="E" ;
HEN INPUT "ISIN ADI: ",AD$:UZ1=LEN(AD$):VE1=71-UZ1/2
16030 IF BAŞ="E" THEN INPUT "KACINCI KAT / HESAP YERIN (X/Y) ",K$,Y$:UZ1/=17#L
ENG(UT$)=VE1/2-1-UZ1/2:YNS=YNS+" "+YNS+" "Y"CHR$(153)+""
"+CHR$(154)
16040 GOSUB 17820
16050 CLS:AB=" KANAL DEFLASYON GULENIXOR MI ? (E/H) ";GOSUB 17800
16060 IF W2=0 THEN 16140
16070 RESTORE 16080:FOR I%=1 TO 13
16080 READ Z(I2):NEXT I%
16090 DATA 0,1,2,3,4,55,6,7,8,9,10,50
16100 RESTORE 16110:FOR I%=1 TO 13
16110 READ W(I2):NEXT I%
16120 DATA 5,55,55,62,66,7,75,775,85,89,92,96,99
16130 GOTO 16250
16140 RESTORE 16150:FOR I%=1 TO 13
16150 READ Z(I2):NEXT I%
16160 DATA 0,1,2,3,4,6,8,10,15,20,30,50,100
16170 RESTORE 16180:FOR I%=1 TO 13
16180 READ W(I2):NEXT I%
16190 DATA 1,1,3,4,4,6,7,7,8,7,16,7,7,5,6,5,5,9
16200 CLS:INPUT "KOLDON ADI=":KAD$
16210 INPUT "B(1cm)=":B:INPUT "G(1cm)=":G:RES=" KANALIS VAR MI ? (E/H) ";GOSUB 17800
0:IF AB="E" THEN 16220
16220 INPUT "K(1cm)=":K:INPUT "M(1cm)=":M
16230 MEAN=ABS(M2)/10,25,50 MEAN#M3 THEN M2#MEAN ELSE M2#M3
16240 M1#M2#35,35,35,35,35,35,35,35,35,35,35,35,35
16250 INPUT "YANIS=":YANIS:RES=" KANALIS VAR MI ? (E/H) ";GOSUB 17800:IF 11#
"E" THEN 16260
16260 IF M1#M2#35 THEN M1#M2#35 ELSE PRINT "KANALIS PARSANLIS ASILIXOR (.)" ;PF

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RINT " KESIT BOYUTLARINI DEGISTIRINIZ !..":FOR TT%=1 TO
2000:NEXT TT%:GOTO 16200
16270 E=M2/N:EBD=E/D
16280 IF EBD<=.1 THEN M2=.1*D*N
16290 IF YD%=1 THEN 16310
16300 CM=1:GOTO 16320
16310 CM=.6+.4*M1/M2
16320 IF SIGMAB<=70 THEN SIGMABS=140
16330 IF SIGMAB<=90 THEN SIGMABS=195
16340 IF SIGMAB<=110 THEN SIGMABS=240
16350 REM
16360 ALFAUST=TKR/TKIR:ALFAALT=TAKR/TAKIR
16370 FB=B*D
16380 FE=MU*FB
16390 JB=B*D^3/12
16400 ALFAA=ALFAUST
16410 GOSUB 17280
16420 KUST=LK
16430 ALFAA=ALFAALT
16440 GOSUB 17280
16450 KALT=LK
16460 K=(KALT+KUST)/2
16470 ATY=D/SQR(12)
16480 IF YD%=1 THEN 16500
16490 KLIS=22:GOTO 16510
16500 KLIS=34-12*M1/M2
16510 KLIH=K*L/ATY
16520 IF KLIH<=KLIS THEN 16540
16530 CLS:PRINT "NARINLIK BOZONUNE ALINIYOR !":GOTO 16550
16540 CLS:PRINT "KOLON NARIN DEGIL ! ":F=1:GOTO 16610
16550 EB=15200*SQR(SIGMABS)
16560 EJ=EB*JB/3.75:PI=4*ATN(1)
16570 NK=PI^2*EJ/(K*L)^2
16580 CM=.6+.4*M1/M2:IF CM<.4 THEN CM=.4
16590 F=CM/(1-1.7*(N/NK))
16600 IF F<0 OR F<1 THEN F=1
16610 M=F*M2
16620 E=M/N
16630 ESD=15*(1+45*MAXI*((D-2*HP)/D)^2)/(64*(1+15*MAXI))
16640 ED=E/D
16650 IF ED>ESD THEN 16880
16660 REM KUCUK EKSANTRISITE
16670 JT=JB+15*FE*((D-2*HP)/2)^2
16680 FT=FB+15*FE
16690 X=D/2
16700 MAXSIGB=N/FT+M*X/JT
16710 MINSIGB=N/FT-M*X/JT:IF ABS(MINSIGB)>(SIGMAB/4) THEN 16880
16720 PRINT "KUCUK EKSANTRISITE DURUMU : "
16730 PRINT USING "Max.Sigb=###.## kg/cm^2  Min.Sigb=###.## kg/cm^2":MAXSIGB,MIN
SIGB
16740 MAXSIGE=(MINSIGB+(MAXSIGB-MINSIGB)*(D-HP)/D)*15
16750 PRINT USING "Max.Sige=+#####.## kg/cm^2  mu=#.#### ":MAXSIGE,MU
16760 IF MAXSIGB>SIGMAB THEN 16810

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16770 IF MINSIGB<0 AND ABS(MINSIGB)>(MAXSIGB/4) THEN 16810
16780 PRINT USING "b=### cm d=### cm h' =##,## cm";B,D,HP
16790 PRINT USING "Toplam DONATI=###,## cm^2";FE
16800 GOTO 16850
16810 PRINT "BETON GERILMELERİ ASILİYOR ! KESİT BOYUTLARINI YA DA PÜRSANTAJI ARTTİRİNİZ : "
16820 GOSUB 18050
16830 AS$=" BOYUTLARI DEĞİSTİRECEK MİSİNİZ ? (E/H) ";GOSUB 17800
16840 IF I1$="E" THEN CLS:GOSUB 18050;GOTO 16210;ELSE GOTO 16260
16850 AS$=" SONUÇLAR UYGUN MU ? (E/H) ";GOSUB 17800
16860 IF I1$="E" THEN 16870 ELSE 16820
16870 GOSUB 17610;GOTO 17750
16880 REM BÜYÜK EKSANTRİSİTE
16890 C=(D-2*HP)/2;EE=C
16900 ME=N*(E+C)
16910 MEP=N*(E-C)
16920 RO=ME/(SIGMAB*B*D^2)
16930 ROP=MEP/(SIGMAB*B*D^2)
16940 MM=SIGMAE/SIGMAB
16950 PS=3/D
16960 X=MM/2;X1=.9*X
16970 SSP=3*(E-D/2)
16980 SSQ=45*FE*E/B
16990 SSR=-45*FE*((D-HP)*(E+EE)+HP*(E-EE))/B
17000 SSA=(3+SSQ-SSP^2)/3
17010 SSB=(2+SSP^3-9*SSP*SSQ+27*SSR)/27
17020 SSD=SSB^2/4+SSA^3/27
17030 IF SSD>0 THEN 17090
17040 SSF=1;IF SSB>0 THEN SSF=-1
17050 SSC=SSF*SQR((SSB^2/4)/(-SSA^3/27))
17060 SST=SQR(1-SSC^2)/SSC;PI#=4*ATN(1)
17070 SSO=ATN(SST);IF SSO<0 THEN SSO=SSO+PI#
17080 SSX=FNV(SSA,SSD)-SSF/3;GOTO 17140
17090 SSI=ABS(-SSB/2+SQR(SSD))^(1/3)
17100 SSJ=ABS(-SSB/2-SQR(SSD))^(1/3)
17110 IF (-SSB/2+SQR(SSD))<0 THEN SSI=-SSI
17120 IF (-SSB/2-SQR(SSD))<0 THEN SSJ=-SSJ
17130 SSX=SSI+SSJ-SSF/3;KX=SSX/(D-HP)
17140 NMAX=(B160+MU*SIGMAF)*FB/3;IF N>NMAX AND MU>MAXI THEN PRINT "KESİT YETERSİZ " :GOTO 17200
17150 IF N<NMAX THEN 16260
17160 FE=MU*FB;CLS;IF MU>MAXI THEN CLS:PRINT USING "Nmax=#,### < N=#,### ";N,NMAX;MU;PRINT "Maksimum pürsantaj ASILİYOR !";GOTO 17200
17170 PRINT "BÜYÜK EKSANTRİSİTE DURUMU ";SIGMA=N/(B*SSX/2+7.5*FE/SSX*(2*SSX-D))
17180 SIGMAE1=15*SIGMA*(D-HP-SSX)/SSX;IF ABS(SIGMAE1)<=SIGMAE AND SIGMA<=SIGMAB THEN 17210
17190 IF SIGMA>SIGMAB THEN PRINT USING "BETON GERİLMESİ ASILİYOR SB=###,## > SBn=#,## kg/cm^2";SIGMA;SIGMAB;IF MU<=MAXI THEN 16260;ELSE E 17210
17200 MU=.999999E-03;PRINT "BOYUTLARI ARTTİRİLDİ ! ";GOSUB 18050;GOTO 16210
17210 PRINT USING "Sigma=###,## kg/cm^2 Sigmae=###,## kg/cm^2";SIGMA,SIGMAE1
17220 PRINT USING "b=### cm d=### cm h' =##,## cm";B,D,HP
17230 PRINT USING "Toplam DONATI=###,## cm^2 Nmax=###,###";FE,MU
17240 AS$=" SONUÇLAR UYGUN MU ? (E/H) ";GOSUB 17800
17250 IF I1$="E" THEN GOSUB 17610;GOTO 17750
17260 IF I1$="H" THEN 16820

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17270 GOSUB 17610
17280 REM LAGRANGE YONTEMIYLE INTERPOLASYON
17290 X(1)=ALFAA
17300 IF YD%=0 THEN 17370
17310 IF ALFAA<=1 THEN 17340
17320 IF ALFAA>1 AND ALFAA<=5 THEN 17350
17330 IF ALFAA>5 THEN 17360
17340 I1=1:I2=8:GOTO 17470
17350 I1=8:I2=11:GOTO 17470
17360 I1=12:I2=13:GOTO 17470
17370 IF ALFAA<=1 THEN 17420
17380 IF ALFAA>1 AND ALFAA<=5 THEN 17430
17390 IF ALFAA>5 AND ALFAA<=15 THEN 17440
17400 IF ALFAA>15 AND ALFAA<=30 THEN 17450
17410 IF ALFAA>30 THEN 17460
17420 I1=1:I2=2:GOTO 17470
17430 I1=2:I2=5:GOTO 17470
17440 I1=5:I2=9:GOTO 17470
17450 I1=9:I2=11:GOTO 17470
17460 I1=11:I2=13
17470 K=1
17480 LC=0
17490 FOR I%=I1 TO I2
17500 P=1
17510 FOR J%=I1 TO I2
17520 IF I%=J% THEN 17550
17530 LA=(X(K)-Z(J%))/(Z(I%)-Z(J%))
17540 P=P*LA
17550 NEXT J%
17560 LB=P*Y(I%)
17570 LC=LC+LB
17580 NEXT I%
17590 LK=LC
17600 RETURN
17610 INPUT "DONATI CAPI (mm)=";DC
17620 FE1=FE/2:PI=4*ATN(1)
17630 DC=DC/10
17640 ALAN=PI*DC^2/4
17650 ND=FE1/ALAN
17660 ND=INT(ND+1)
17670 ARA=(B-3-ND*DC)/(ND-1)
17680 IF ARA>=DC THEN 17700 ELSE IF (D/B)>=5 THEN 17700
17690 PRINT "DONATI CAPINI ARTIR !":GOTO 17610
17700 PRINT "DONATI CAPI=";10*DC;" mm"
17710 PRINT "DONATI SIMETRİK OLARAK YERLESTİRİLECEK : "
17720 PRINT "BİR YUZDEKI DONATI SAYISI=";ND;" TOPLAM DONATI SAYISI=";2*ND
17730 AS$=" YAZICIYA YAZILSIN MI ? (E/H) " :RR%=20:GOSUB 17800:IF I1$="H" THEN 17
610
17740 ERASE Z,Y:DIM Z(13),Y(13):RETURN
17750 FE=2*ALAN*ND
17760 LPRINT TAB(3);"S";KOL$;TAB(16);USING "####.##";M/1000;;LPRINT TAB(27);USIN
G "####.##";N/1000;
17770 LPRINT TAB(38);USING "###";B;;LPRINT TAB(48);USING "###";D;;LPRINT TAB(58)
;USING "##.##";HP;;LPRINT TAB(66);USING "#.#####";MU;
17780 LPRINT TAB(87);USING "####.##";FE1*2;;LPRINT TAB(105);USING "## & ## =####.#
# cm² ";2*ND;CHR$(237);DC*10;FE

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17790 GOTO 16060
17800 KEY OFF:ROW%=CSRLIN:COL%=POS(0):RR%=40-LEN(AS$)/2:LOCATE 25,RR%:COLOR 0,7:
PRINT AS$
17810 I1$=INKEY$:IF I1$="E" OR I1$="H" THEN COLOR 7,0:KEY ON:LOCATE ROW%,COL%:RE
TURN:ELSE 17810
17820 WIDTH "LPT1:",140:LPRINT CHR$(27);"R";CHR$(2);:IF I1$="E" THEN LPRINT CHR$
(14);CHR$(15);TAB(VE%);AD$:ELSE IF BAS$="H" THEN 17890
17830 LPRINT CHR$(14);CHR$(15);TAB(VE1%);KT$:" KATLARI ";/N$
17840 LPRINT CHR$(14);CHR$(15);TAB(20);"*** KOLON HESAPLARI ***":LPRINT CHR$(15)
;
17850 LPRINT "-----"
-----
"
17860 LPRINT TAB(2);"KOLON";TAB(19);"M";TAB(29);"N";TAB(39);"b";TAB(49);"d";TAB(
59);"h'";TAB(68);CHR$(230);TAB(85);"TOPLAM DONATI";TAB(1
05);"Se";CHR$(135);"ilen DONATI"
17870 LPRINT TAB(17);"(tcm)";TAB(28);"(t)";TAB(38);"(cm)";TAB(48);"(cm)";TAB(58)
;"(cm)";TAB(88);"(cm";CHR$(253);")"
17880 LPRINT "-----"
-----
"
17890 RETURN
17900 CLS:PRINT "GUVENLIK GERILMELERINI VERINIZ ;"
17910 PRINT "[B.160 } 70 ] [B.225 } 90 ] [B.300 } 110 ] (kg/cm^2) Seciniz,,"
17920 INPUT "Sb=? (kg/cm^2) ",SIGMAB:IF SIGMAB<=70 AND SIGMAB>=50 THEN B160=140:
MAXI=.03
17930 INPUT "Se=? (kg/cm^2) ",SIGMAE:IF SIGMAB<=90 AND SIGMAB >=75 THEN B160=195
:MAXI=.035
17940 PRINT "DELIGIN CEKME GERILMESINI VERINIZ B160 - BCI icin 2200 (kg/cm^2 )"
:PRINT " B225 - BCI 2400 ; BCIII 3700 BCIV 4000":INPUT "
Ssp=? (kg/cm^2) ",SIGMAP
17950 INPUT "KOLON BOYU (cm)=";L:IF SIGMAB<=110 AND SIGMAB>=95 THEN B160=240:MAX
I=.04
17960 INPUT "PAS PAYI h'(cm)=";HF
17970 AS$=" YANLIS VAR MI ? (E/H) ":GOSUB 17800:IF I1$="E" THEN 17900
17980 RETURN
17990 CLS:INPUT "UST UC KOLON REDORLERI TOPLAMI=";TKR
18000 INPUT "UST UC KIRIS REDORLERI TOPLAMI=";TKIR
18010 INPUT "ALT UC KOLON REDORLERI TOPLAMI=";TAKR
18020 INPUT "ALT UC KIRIS REDORLERI TOPLAMI=";TAKIR
18030 AS$=" YANLIS VAR MI ? (E/H) ":RR%=20:GOSUB 17800:IF I1$="E" THEN 17990
18040 RETURN
18050 PRINT "SON BOYUTLAR : S";KOL$
18060 PRINT USING "b=### cm d=### cm";B,D:PRINT USING "Mz=####.## tcm Md=####.##
# tcm N=####.## t";M1Z;M3,N/1000!
18070 RETURN
*
19000 DIM MT(40),FE(40),SGM(40),K6(20),K3(20),SM(20),K7(20),Y(20),TG(20),LF(20)
19010 FOR RR=1 TO 16: READ SM(RR),K3(RR),K6(RR): NEXT RR
19020 CLS
19030 INPUT " TEMEL ADI NEDIR ";T$
19040 INPUT " KAC ACIKLIK ";N
19050 INPUT " TEMEL GENISLIGI cm";BT
19060 INPUT " ZEMIN EMN. GER. = ";GZM
19070 INPUT " SOL KONSOL ACIKLIGI";LL
19080 INPUT " SAG KONSOL ACIKLIGI";LR
19090 INPUT " AMPATMAN TURU ";ZX$

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19100 IF ZX#="T" THEN CC=1: PRINT "      TEK YONLU" : GOTO 19120
19110 CC=2: PRINT "      CIFT YONLU"
19120 FOR I=1 TO N+1: PRINT I;". YUK";: INPUT Q(I): NEXT I
19130 PRINT
19140 IF N=1 THEN PRINT "ACIKLIK";: INPUT L(1): PRINT : GOTO 19160
19150 FOR I=1 TO N : PRINT I;". ACIKLIK";: INPUT L(I): NEXT I: PRINT
19160 FOR I=1 TO N+1: PRINT I;". KOLONUN HESAP DOGR. BOYU m";: INPUT A(I): NEXT
I
19170 PRINT "      ";N;". ACIKLIKLIKLI";T#;" TEMELI"
19180 PRINT "      YUKLER"
19190 FOR I=1 TO N+1: PRINT Q(I);"      ";; NEXT I
19200 PRINT
19210 PRINT "      ACIKLIKLAR"
19220 FOR I=1 TO N: PRINT L(I);"      ";; NEXT I
19230 PRINT
19240 PRINT "      KOLON BOYUTLARI"
19250 FOR I=1 TO N+1: PRINT A(I);"      ";; NEXT I
19260 PRINT
19270 PRINT "      KONSOLLAR : " ;LL;"      " ;LR
19280 PRINT "      TEMEL GENISLIGI";BT;"cm"
19290 PRINT "      ZEMIN EM.GERL.";GZM;"kg/cm2"
19300 INPUT "      DOGRUMU (E/H)";ZX#: IF ZX#<>"E" THEN 19020
19310 REM      YUKLERIN YAYILI YUKE CEVRILMESI
19320 QA(1)=Q(1)/((L(1)+A(1))/2+LL)
19330 IF N<2 THEN 19370
19340 FOR I=2 TO N
19350 QA(I)=Q(I)/((L(I-1)+L(I))/2)
19360 NEXT I
19370 QA(N+1)=Q(N+1)/((L(N)+A(N+1))/2+LR)
19380 REM      KESME KUVVETLERININ HES
19390 FOR I=1 TO N:QH(I)=(QA(I)+QA(I+1))/2: NEXT I
19400 YO(1)=QA(1)*(A(1)/2+LL)-Q(1):T(1)=YO(1)+Q(1)
19410 YL=QA(1)*LL
19420 FOR I=1 TO N
19430 YI=YO(I)+QH(I)*L(I):T(I+1)=YI
19440 Y1(I)=((YI-YO(I))/L(I))*(A(I)/2)+YO(I)
19450 Y2(I)=((YI-YO(I))/L(I))*(L(I)-A(I+1)/2)+YO(I)
19460 YO(I+1)=YI-Q(I+1)
19470 IF ABS(Y1(I))>ABS(Y2(I)) THEN Y(I)=ABS(Y1(I)): GOTO 19490
19480 Y(I)=ABS(Y2(I))
19490 NEXT I
19500 YR=YO(N+1)+QA(N+1)*A(N+1)/2
19510 IF LL>0 THEN ML=QA(1)*LL^2/2
19520 IF LR>0 THEN MR=QA(N+1)*LR^2/2
19530 FOR I=1 TO N
19540 AA=(A(I)+A(I+1))/2
19550 IF AA>.75 THEN L(I)=(L(I)-AA)*1.1
19560 M(I)=QH(I)*L(I)^2/12: NEXT I:
19570 IF N=1 AND LL=0 AND LR=0 THEN M(N)=QH(N)*L(N)^2/10
19580 FOR I=1 TO N
19590 QA(I)=(INT(QA(I)*100+.5))/100
19600 QH(I)=(INT(QH(I)*100+.5))/100
19610 M(I)=(INT(M(I)*100+.5))/100
19620 Y(I)=(INT(Y(I)*100+.5))/100
19630 NEXT I

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19640 YL=(INT(YL*100+.5))/100
19650 YR=(INT(YR*100+.5))/100
19660 QA(N+1)=(INT(QA(N+1)*100+.5))/100
19670 ML=(INT(ML*100+.5))/100
19680 MR=(INT(MR*100+.5))/100
19690 PRINT "      QA="
19700 FOR I=1 TO N+1: PRINT QA(I);"      ";; NEXT I
19710 PRINT
19720 PRINT "      QH="
19730 FOR I=1 TO N: PRINT QH(I);"      ";; NEXT I
19740 PRINT : PRINT "      MOMENTLER :"
19750 IF LL>0 THEN PRINT ML"      "
19760 FOR I=1 TO N: PRINT M(I)"      ";; NEXT I
19770 IF LR>0 THEN PRINT MR
19780 PRINT
19790 PRINT "      KESME KUVVETLERI :"
19800 IF LL>0 THEN PRINT YL;"      "
19810 FOR I=1 TO N: PRINT Y(I);"      ";; NEXT I
19820 IF LR>0 THEN PRINT YR
19830 MM=0:TM=0
19840 FOR I=1 TO N
19850 IF MM>M(I) THEN 19880
19860 MM=M(I)
19870 YL=ABS(YL):YR=ABS(YR)
19880 IF TM>Y(I) THEN 19900
19890 TM=Y(I)
19900 NEXT I
19910 IF YL>TM THEN TM=YL
19920 IF YR>TM THEN TM=YR
19930 IF ML>MM THEN MM=ML
19940 IF MR>MM THEN MM=MR
19950 PRINT
19960 PRINT "***** MAX.M= ";;MM;"TON METRE
19970 PRINT "***** MAX.T= ";;TM;"TON
19980 H1=13.69*(MM*100/BT)^.5
19990 H2=TM/(.9*BT*7!)*1000
20000 IF H1>H2 THEN H=H1: GOTO 20020
20010 H=H2
20020 H=(INT(H/10+.9))*10
20030 IF H<45 THEN H=45
20040 FOR I=1 TO N
20050 KA=BT*H^2/(M(I)*100)
20060 K7(I)=(INT(KA*100+.5))/100:WY=0
20070 FOR JJ=1 TO 7
20080 IF WY>0 THEN 20100
20090 IF KA>K6(JJ) THEN WY=JJ
20100 NEXT JJ
20110 REM PRINT "      GERILME COK BUYUK      "
20120 FE(I)=K3(WY)*M(I)*100/H
20130 FE(I)=(INT(FE(I)*100+.5))/100
20140 SGM(I)=SM(WY)*1000
20150 TO(I)=Y(I)/(.9*BT*H)*1000: TO(I)=(INT(TO(I)*100+.5))/100
20160 NEXT I
20170 IF LL=0 THEN 20270
20180 KA=BT*H^2/(ML*100)
20190 KL=(INT(KA*100+.5))/100:WR=0
20200 FOR JJ=1 TO 7

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20210 IF WR>0 THEN 20230
20220 IF KA>K6(JJ) THEN WR=JJ
20230 NEXT JJ
20240 FL=K3(WR)*ML*100/H
20250 FL=(INT(FL*100+.5))/100
20260 SL=SM(WR)*1000;TL=YL/(.9*BT*H)*1000;TL=(INT(TL*100+.5))/100
20270 IF LR=0 THEN 20380
20280 KA=BT*H^2/(MR*100)
20290 WL=0
20300 FOR JJ=1 TO 11
20310 IF WL>0 THEN 20330
20320 IF KA>K6(JJ) THEN WL=JJ
20330 NEXT JJ
20340 FR=K3(WL)*MR*100/H
20350 FR=(INT(FR*100+.5))/100
20360 SR=SM(WL)*1000;TR=YR/(.9*BT*H)*1000;TR=(INT(TR*100+.5))/100
20370 KR=(INT(KA*100+.5))/100
20380 PRINT "***** H      =";H;" CM "
20390 PRINT "***** DONATILAR : "
20400 IF LL>0 THEN PRINT FL,
20410 FOR I=1 TO N
20420 PRINT FE(I),: NEXT I
20430 IF LR>0 THEN PRINT FR
20440 PRINT : PRINT "***** GERILMELER"
20450 IF LL>0 THEN PRINT SL;
20460 FOR I=1 TO N: PRINT SGM(I),: NEXT I
20470 IF LR>0 THEN PRINT SR
20480 PRINT " "
20490 REM ***** AMPATMAN HESABI *****
20500 IF CC=2 THEN PRINT "***** CIFT YONLU AMPATMAN HESABI "; GOTO 20520
20510 PRINT "***** TEK YONLU AMPATMAN HESABI ";
20520 TQ=TM/(.9*BT*H);QM=0;TQ=TQ*100000!
20530 TQ=INT(TQ);TQ=TQ/100; PRINT "***** TO =";TQ;" KG/CM2
20540 FOR I=1 TO N
20550 IF QM<QH(I) THEN QM=QH(I)
20560 NEXT I
20570 IF QM<QA(1) THEN QM=QA(1)
20580 IF QM<QA(N+1) THEN QM=QA(N+1)
20590 BO=QM*10/GZM;BO=BO*100;BO=INT(BO);BO=BO/100
20600 PRINT "***** BO= ";BO;" CM
20610 PRINT "***** BT= ";BT;" CM";BB=0
20620 IF BT<BO THEN BB=1; GOTO 20640
20630 PRINT ;PRINT " AMPATMAN GEREKMEZ "; GOTO 20740
20640 IF CC=2 THEN LAMP=(BO-BT)/2; GOTO 20660
20650 LAMP=(BO-BT)
20660 MAP=GZM*LAMP^2/2;MAP=MAP*10;MAP=INT(MAP);MAP=MAP/100
20670 PRINT "***** MAP= ";MAP;" TON CM,
20680 HAMP=13.69*(2.25*MAP/100)^.5
20690 HAMP=HAMP*100;HAMP=INT(HAMP);HAMP=HAMP/100
20700 IF HAMP<20 THEN HAMP=20
20710 PRINT "***** HAMP= ";HAMP;" CM
20720 FEAP=,.784*MAP/20*1.11;FEAP=FEAP*100;FEAP=INT(FEAP);FEAP=FEAP/100
20730 PRINT "***** FE= ";FEAP;" CM2

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20740 LPRINT "***** TEMEL YONLU AMPATMAN HESABI *****"
20750 LPRINT "***** TO *****"
20740 INPUT " TEMEL GENISLIGI UYGUNMU":MX$: IF MX$="E" THEN 20760
20750 INPUT " TEMEL GENISLIGI CM ":BT
20760 INPUT " KONSOLLAR UYGUNMU":YX$: IF YX$="E" THEN 20790
20770 PRINT " SOL KONSOL=" " :LL$: INPUT " " :LL
20780 PRINT " SAG KONSOL=" " :LR$: INPUT " " :LR: PRINT LL,LR
20790 IF MX$<>"E" OR YX$<>"E" GOTO 19310
20800 INPUT " YAZDIRACAKMISINIZ":YAZI$: IF YAZI$<>"E" THEN 21370
20810 INPUT " YENI SAHIFEMI ":YENI$
20820 IF YENI$<>"E" THEN 20850
20830 LPRINT "SERHAD MUHENDISLIK TEMEL HESABLARI
Sahife: _____
20840 LPRINT : LPRINT : LPRINT
20850 LPRINT : LPRINT
20860 LPRINT T$:" TEMELI"
20870 LPRINT
20880 LPRINT "ACIKLIKLER:";
20890 FOR I=1 TO N : LPRINT L(I);" " : ; NEXT I
20900 LPRINT
20910 LPRINT "YUKLER " :;
20920 FOR I=1 TO N+1 : LPRINT Q(I);" " : ; NEXT I
20930 LPRINT
20940 LPRINT "KONSOLLAR " :;
20950 LPRINT LL;" " :LR
20960 LPRINT "ZEM.EM.GE.:";
20970 LPRINT GZM;"kg/cm2"
20980 LPRINT
20990 LPRINT " QA="
21000 FOR I=1 TO N+1: LPRINT QA(I);" " : ; NEXT I
21010 LPRINT
21020 LPRINT " QH="
21030 FOR I=1 TO N: LPRINT QH(I);" " : ; NEXT I
21040 LPRINT : LPRINT " MOMENTLER : "
21050 IF LL>0 THEN LPRINT ML" " : ;
21060 FOR I=1 TO N: LPRINT M(I)" " : ; NEXT I
21070 IF LR>0 THEN LPRINT MR
21080 LPRINT
21090 LPRINT " KESME KUVVETLERI : "
21100 IF LL>0 THEN LPRINT YL;" " : ;
21110 FOR I=1 TO N: LPRINT Y(I);" " : ; NEXT I
21120 IF LR>0 THEN LPRINT YR
21130 LPRINT
21140 LPRINT "***** MAX.N= " :MM$:"TON METRE
21150 LPRINT "***** MAX.T= " :TM$:"TON
21160 LPRINT "***** H = " :HM$:"CM "
21170 LPRINT "***** DONATILAR : "
21180 IF LL>0 THEN LPRINT FL,
21190 FOR I=1 TO N
21200 LPRINT FE(I);, NEXT I
21210 IF LR>0 THEN LPRINT FR
21220 LPRINT : LPRINT "***** GERILMELER"
21230 IF LL>0 THEN LPRINT SL,
21240 FOR I=1 TO N: LPRINT SGH(I);, NEXT I
21250 IF LR>0 THEN LPRINT SR
21260 LPRINT " "
21270 IF CC=2 THEN LPRINT "***** CIFT YONLU AMPATMAN HESABI : " : GOTO 21290

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21280 LPRINT "***** TEK YONLU AMPATMAN HESABI : "
21290 LPRINT "***** TO =":TQ;" KG/CM2
21300 LPRINT "***** BO=   ":BO;"CM
21310 LPRINT "***** BT=   ":BT;"CM":BB=0
21320 IF BT<BO THEN BB=1: GOTO 21340
21330 LPRINT :LPRINT "  AMPATMAN GEREKMEZ   ": GOTO 21370
21340 LPRINT "***** MAP=  ":MAP;" TON CM.
21350 LPRINT "***** HAMP=  ":HAMP;"CM
21360 LPRINT "***** FE=   ":FEAP;"CM2
21370 INPUT "COZULECEK BASKA TEMEL VAERMI":BASKA$
21380 IF BASKA$="E" THEN 19020
21390 CLS:END
21400 DATA .030,.777,298.2
21410 DATA .032,.781,267.5
21420 DATA .034,.784,241.8
21430 DATA .036,.787,220.0
21440 DATA .038,.791,201.3
21450 DATA .040,.794,185.1
21460 DATA .041,.795,177.9
21470 DATA .042,.797,171.1
21480 DATA .043,.798,164.8
21490 DATA .044,.800,158.8
21500 DATA .045,.801,153.6
21510 DATA .046,.803,148.0
21520 DATA .047,.804,143.0
21530 DATA .048,.805,138.3
21540 DATA .049,.807,133.9
21550 DATA .050,.808,129.8

25000 REM TEKIL TEMAEL HESABI
25010 PRINT "TEMEL TIPI (TAM P.=1-YARIM P.=2)":
25020 INPUT "   ":TR
25030 PRINT "YUK   KG   "
25040 INPUT "   ":Q
25050 PRINT "KOLON K.KENARI   CM   "
25060 INPUT "   ":KK
25070 PRINT "KOLON U.KENARI   CM   "
25080 INPUT "   ":KU
25090 PRINT "ZEMIN EMN.GERIL.   "
25100 INPUT "   ":G
25110 PRINT "ILK TEMELMI   E/H   "
25120 INPUT "   ":IT$
25130 IF IT$<>"E" THEN 25150: INPUT "SAHIFE NO   ":SY$
25140 INPUT "SAHIFE NO   ":SY$
25150 INPUT "TEMEL ADI   "
25160 INPUT "KOLON ISIMLERI   "
25170 DG=SQR(Q)/3000:DG=INT(DG*1000)/1000
25180 F=Q/(G-DG)
25190 IF TR=1 GOTO 25410
25200 INPUT "Q2=":Q2: INPUT "ARA MESAFE ":L1: PRINT : PRINT "LUTFEN BEKLEYIN "
25210 T1K=SQR(F/2)/10:T1K=T1K+.5:T1K=INT(T1K)*10: IF T1K<KK THEN T1K=KK+10
25220 E1X=(T1K-KK)/2:A1=Q/(Q+Q2)*L1
25230 RA=(Q+Q2)*A1/(L1-E1X):F1=RA/(G-DG):TK=SQR(F1/2)/10:TK=TK+.5:TK=INT(TK)*10
25240 TU=TK*2: IF TK<KK THEN TK=KK+10: IF TU<KU THEN TU=KU+10
25250 EX=(TK-KK)/2:R1=(Q+Q2)*A1/(L1-EX):M=Q*EX:DM=(R1-Q)*TK/2:M=INT(M/1000):F=F1

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25260 DM=INT(DM/1000):A1=INT(A1):MD=M-DM:BO=30:HBK= SQR(MD/BO)*11.26: IF HBK<80
GOTO 25290
25270 BO=BO+10:HBK= SQR(MD/BO)*11.26
25280 IF HBK>80 THEN 25270
25290 HBK= INT(HBK/10+.5)*10:FBK=.77*MD/(HBK-4):FBK= INT(FBK):R1= INT(R1)
25300 MK=(G* $TU*((TK-KK)^2)$ )/2:MK=MK/1000:MK= INT(MK)
25310 MU=(G* $TK*((TU-KU)/2)^2$ )/2:MU=MU/1000:MU= INT(MU):D1=SQR((2.25*MK/TU))*13
.7
25320 D2=SQR((2.25*MU/TK))*13.7:D=D1: IF D2>D1 THEN D=D2
25330 D=(D/10)+.6:D= INT(D)*10: IF D<45 THEN D=45
25340 NK=G* $TU*(TK-KK)$ :NU=G* $TK*((TU-KU)/2)$ :NU= INT(NU):NK= INT(NK): IF MU>MK GOTO
25360
25350 FK=1.11*MK*.8/D:FK= INT(FK):FU=1.11*MU*.8/(D-1.5):FU= INT(FU) : GOTO 25370
25360 FU=1.11*MU*.8/D:FU= INT(FU):FK=1.11*MK*.8/(D-1.5):FK= INT(FK)
25370 T1Q=(1.34*NU/(.9*D*TK))*100:T1Q= INT(T1Q)/100: IF T1Q> 6.5 THEN D=D+5 GOTO
25340
25380 T2Q=(1.34*NU/(.9*D*TK))*100:T2Q= INT(T2Q)/100: IF T2Q>6.5 THEN D=D+5 GOTO
25340
25390 PRINT "LUTFEN BEKLEYINIZ"
25400 H=D+5: GOTO 25610
25410 TU=((KU-KK)+ SQR((KU-KK)^2+(4*F)))/2
25420 TK=TU-KU+KK
25430 TK=TK/10+.9:TU=TU/10+.9
25440 TK= INT(TK):TU= INT(TU):TK=TK*10:TU=TU*10
25450 IF TK<100 THEN TK=100: IF TK<KK THEN TK=KK+20: IF TU<100 THEN TU=100
25460 IF TU<KU THEN TU=KU+20
25470 MK=G* $TU*((TK-KK)/2)^2/2$ 
25480 MU=G* $TK*((TU-KU)/2)^2/2$ 
25490 NK=G* $TU*(TK-KK)/2$ 
25500 NU=G* $TK*(TU-KU)/2$ 
25510 MK=MK/1000:MK= INT(MK)
25520 MU=MU/1000:MU= INT(MU)
25530 D1=13.69*SQR(2.25*MK/TU):D2=13.69*SQR(2.25*MU/TK):D=D1: IF D2>D1 THEN D=D2
25540 D=(D/10)+.9:D= INT(D)*10: IF D<45 THEN D=45
25550 T1Q=1.34*NK/(.9*TU*D):T1Q= INT(T1Q*100)/100
25560 T2Q=1.34*NU/(.9*TK*D):T2Q= INT(T2Q*100)/100: IF T1Q>6.5 THEN D=D+5 : GOTO
25550
25570 IF T2Q>6.5 THEN D=D+5 GOTO 25550
25580 FU=1.11*.794*MU/D:FU= INT(FU*100)/100
25590 FK=1.11*.794*MK/D:FK= INT(FK*100)/100
25600 F= INT(F/100)*100:H=D+5:H= INT(H)
25610 IF IT#<>"E" GOTO 25640
25620 PRINT " SERHAD MUHENDISLIK          TEMEL HESAPLARI          SAHIFE: ";
SY$
25630 PRINT : PRINT
25640 PRINT "          ";N$;" TEMELI          "S$,KK;"/";KU
25650 PRINT : PRINT
25660 PRINT "Q=";Q;"KG","DG";DG;"KG/CM2","F=";F;"CM2"
25670 PRINT
25680 PRINT "TB=";TU;"CM","TA=";TK;"CM"
25690 PRINT
25700 PRINT "MB=";MU;"TON CM","FEB=";FU;"CM2"
25710 PRINT

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25720 PRINT "MA=";MK;"TON CM","FEA=";FK;"CM2": PRINT
25730 PRINT "D=";H;"CM","BETON GER.<40": PRINT
25740 PRINT "NA=";NK;"KG","NB=";NU;"KG": PRINT
25750 PRINT "T1Q=";T1Q;"KG/CM2<6","T2Q=";T2Q;"KG/CM2<6": PRINT
25760 IF TR<>2 GOTO 25860
25770 PRINT "BAG KIRISI HESABI:
25780 PRINT
25790 PRINT
25800 PRINT "Q1=";Q;"KG","Q2=";Q2;"KG","L1=";L1;"CM"
25810 PRINT
25820 PRINT "A=";A1;"CM","R1=";R1;"KG"
25830 PRINT
25840 PRINT "MMA=";M;"TON CM","DM=";DM;"TON CM","MD=";MD;"TON CM"
25850 PRINT "H=";HBK;"CM","BO=";BO;"CM","FE=";FBK;"CM2"
25860 PRINT
25870 PRINT "*****      *****      *****      *****      *****      *****      *****      *****"
25880 INPUT " YAZDIRACAKMISINIZ ";K$
25890 IF K$<>"E" THEN 26170
25900 IF IT$<>"E" GOTO 25930
25910 LPRINT " SERHAD MUHENDISLIK          TEMEL HESAPLARI          SAHIFE:
;SY$
25920 LPRINT : LPRINT
25930 LPRINT "          ";N$;" TEMELI          "S$;KK;"/";KU
25940 LPRINT : LPRINT
25950 LPRINT "Q=";Q;"KG","DG=";DG;"KG/CM2","F=";F;"CM2"
25960 LPRINT
25970 LPRINT "TB=";TU;"CM","TA=";TK;"CM"
25980 LPRINT
25990 LPRINT "MB=";MU;"TON CM","FEB=";FU;"CM2"
26000 LPRINT
26010 LPRINT "MA=";MK;"TON CM","FEA=";FK;"CM2": LPRINT
26020 LPRINT "D=";H;"CM","BETON GER.<40": LPRINT
26030 LPRINT "NA=";NK;"KG","NB=";NU;"KG": LPRINT
26040 LPRINT "T1Q=";T1Q;"KG/CM2<6","T2Q=";T2Q;"KG/CM2<6": LPRINT
26050 IF TR<>2 GOTO 26150
26060 LPRINT "BAG KIRISI HESABI:
26070 LPRINT
26080 LPRINT
26090 LPRINT "Q1=";Q;"KG","Q2=";Q2;"KG","L1=";L1;"CM"
26100 LPRINT
26110 LPRINT "A=";A1;"CM","R1=";R1;"KG"
26120 LPRINT
26130 LPRINT "MMA=";M;"TON CM","DM=";DM;"TON CM","MD=";MD;"TON CM"
26140 LPRINT "H=";HBK;"CM","BO=";BO;"CM","FE=";FBK;"CM2"
26150 LPRINT
26160 LPRINT "*****      *****      *****      *****      *****      *****      *****      *****"
26170 END

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27000 CLS
27010 REM DOSEME DONATI METRAJI
27020 LOCATE 2,2:PRINT "DOSEME TIP SAYISI =":LOCATE 2,21:INPUT " ",N
27030 FOR I=1 TO N
27040 FOR J=1 TO N
27050 FOR K=1 TO N
27060 INPUT "FILYE BOYU(m):",L1
27070 INPUT "DUZ BOYU(m):",L2
27080 INPUT "DOSEME DIK BOYU(m):",LD
27090 INPUT "DONATI ARALIGI(cm):",LA
27100 PI=3.14159
27110 INPUT "DONATI CAPI=",D
27120 IF D=8 THEN GOTO 27150 ELSE 27130
27130 IF D=10 THEN GOTO 27270 ELSE 27140
27140 IF D=12 THEN GOTO 27390 ELSE GOTO 27510
27150 T1=(L1+L2)*.395
27160 T2=T1*LD*100/LA
27170 TOP1=TOP1+T2
27180 PRINT "TOP1="TOP1
27190 INPUT"(1)devam (2)son ",X
27200 IF X=2 THEN GOTO 27220
27210 NEXT K
27220 LPRINT CHR$(14);"          ""***DOSEME DEMIR METRAJI***"
27230 LPRINT "DOSEMEDEKI 8'lik DONATI METRAJI=";TOP1;"Kg";"   ""FI8""  " "(1 KATT
AKI)"
27240 LPRINT "DOSEMEDEKI 10'luk DONATI METRAJI=";TOP2;"Kg";"   ""FI10""  " "(1 KA
TTAKI)"
27250 LPRINT "DOSEMEDEKI 12'lik DONATI METRAJI=";TOP3;"Kg";"   ""FI12""  " "(1 KA
TTAKI)"
27260 GOTO 27520
27270 T3=(L1+L2)*.617
27280 T4=T3*LD*100/LA
27290 TOP2=TOP2+T4
27300 PRINT "TOP2="TOP2
27310 INPUT"(1)devam (2)son ",X
27320 IF X=2 THEN GOTO 27340
27330 NEXT J
27340 LPRINT CHR$(14);"          ""***DOSEME DEMIR METRAJI***"
27350 LPRINT "DOSEMEDEKI 8'lik DONATI METRAJI=";TOP1;"Kg";"   ""FI8""  " "(1 KATT
AKI)"
27360 LPRINT "DOSEMEDEKI 10'luk DONATI METRAJI=";TOP2;"Kg";"   ""FI10""  " "(1 KA
TTAKI)"
27370 LPRINT "DOSEMEDEKI 12'lik DONATI METRAJI=";TOP3;"Kg";"   ""FI12""  " "(1 KA
TTAKI)"
27380 GOTO 27520
27390 T5=(L1+L2)*.888
27400 T6=T5*LD*100/LA
27410 TOP3=TOP3+T6
27420 PRINT "TOP3="TOP3
27430 INPUT"(1)devam (2)son ",X
27440 IF X=2 THEN GOTO 27460
27450 NEXT I
27460 LPRINT CHR$(14);"          ""***DOSEME DEMIR METRAJI***"
27470 LPRINT "DOSEMEDEKI 8'lik DONATI METRAJI=";TOP1;"Kg";"   ""FI8""  " "(1 KATT
AKI)"
27480 LPRINT "DOSEMEDEKI 10'luk DONATI METRAJI=";TOP2;"Kg";"   ""FI10""  " "(1 KA

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TTAKI)"
27490 LPRINT "DOSEMEDEKI 12'lik DONATI METRAJI=";TOP3;"kg";" ""FI12"" ""(1 KA
TTAKI)"
27500 GOTO 27520
27510 PRINT "DONATI CAPINI 8 , 10 VEYA 12 GIRINIZ"
27520 END

28000 CLS
28010 REM KOLON DONATI METRAJI
28020 LOCATE 2,2:PRINT "KOLON SAYISI=";LOCATE 2,15:INPUT " ",N
28030 FOR I=1 TO N
28040 FOR J=1 TO N
28050 FOR K=1 TO N
28060 FOR L=1 TO N
28070 FOR M=1 TO N
28080 INPUT "KOLON YUKSEKLIGI (m):",H
28090 INPUT "DONATI CAPI(mm):",D
28100 INPUT "DONATI ADEDI:",S
28110 INPUT "KOLON KISA KENAR (cm)=",BK
28120 INPUT "KOLON UZUN KENARI (cm)=",BU
28130 U=((BK-2)+(BU-2))*2+2*8)*10^-2
28140 U1=U*(H-1)*100/17
28150 U2=U*1*100/10
28160 U3=(U1+U2)*.395
28170 TOPETR=TOPETR+U3
28180 PRINT "KOLON ETRIYE METRAJI=";TOPETR;" ""kg";" ""FI8"" ""(1 KATTAKI)"
28190 IF D=14 THEN GOTO 28240 ELSE 28200
28200 IF D=16 THEN GOTO 28390 ELSE 28210
28210 IF D=18 THEN GOTO 28540 ELSE 28220
28220 IF D=20 THEN GOTO 28690 ELSE 28230
28230 IF D=22 THEN GOTO 28840 ELSE 28980
28240 T1=S*(H+2*(50*D*10^-3))
28250 T2=T1*1.21
28260 TOP1=TOP1+T2
28270 PRINT "TOPLAM DONATI METRAJI=";TOP1 ;"kg";" ""FI14"
28280 INPUT "(1) devam (2) son",X
28290 IF X=2 THEN GOTO 28310
28300 NEXT M
28310 LPRINT CHR$(14);" ""***KOLON DONATI METRAJI***"
28320 LPRINT "TOPLAM ETRIYE METRAJI=";TOPETR ;"kg";" ""FI8"
28330 LPRINT "TOPLAM DONATI METRAJI=";TOP1 ;"kg";" ""FI14"
28340 LPRINT "TOPLAM DONATI METRAJI=";TOP2 ;"kg";" ""FI16"
28350 LPRINT "TOPLAM DONATI METRAJI=";TOP3 ;"kg";" ""FI18"
28360 LPRINT "TOPLAM DONATI METRAJI=";TOP4 ;"kg";" ""FI20"
28370 LPRINT "TOPLAM DONATI METRAJI=";TOP5 ;"kg";" ""FI22"
28380 GOTO 7000
28390 T3=S*(H+2*(50*D*10^-3))
28400 T4=T3*1.58
28410 TOP2=TOP2+T4
28420 PRINT "TOPLAM DONATI METRAJI=";TOP2 ;"kg";" ""FI16"
28430 INPUT "(1) devam (2) son",X
28440 IF X=2 THEN GOTO 28460
28450 NEXT L
28460 LPRINT CHR$(14);" ""***KOLON DONATI METRAJI***"
28470 LPRINT "TOPLAM ETRIYE METRAJI=";TOPETR ;"kg";" ""FI8"

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28480 LPRINT "TOPLAM DONATI METRAJI=";TOP1 ; "kg"; " ""FI14"
28490 LPRINT "TOPLAM DONATI METRAJI=";TOP2 ; "kg"; " ""FI16"
28500 LPRINT "TOPLAM DONATI METRAJI=";TOP3 ; "kg"; " ""FI18"
28510 LPRINT "TOPLAM DONATI METRAJI=";TOP4 ; "kg"; " ""FI20"
28520 LPRINT "TOPLAM DONATI METRAJI=";TOP5 ; "kg"; " ""FI22"
28530 GOTO 28980
28540 T5=S*(H+2*(50*D*10^-3))
28550 T6=T5*2!
28560 TOP3=TOP3+T6
28570 PRINT "TOPLAM DONATI METRAJI=";TOP3 ; "kg"; " ""FI18"
28580 INPUT "(1) devam (2) son",X
28590 IF X=2 THEN GOTO 28610
28600 NEXT K
28610 LPRINT CHR$(14); " ""***KOLON DONATI METRAJI***"
28620 LPRINT "TOPLAM ETRIYE METRAJI=";TOPETR ; "kg"; " ""FI8"
28630 LPRINT "TOPLAM DONATI METRAJI=";TOP1 ; "kg"; " ""FI14"
28640 LPRINT "TOPLAM DONATI METRAJI=";TOP2 ; "kg"; " ""FI16"
28650 LPRINT "TOPLAM DONATI METRAJI=";TOP3 ; "kg"; " ""FI18"
28660 LPRINT "TOPLAM DONATI METRAJI=";TOP4 ; "kg"; " ""FI20"
28670 LPRINT "TOPLAM DONATI METRAJI=";TOP5 ; "kg"; " ""FI22"
28680 GOTO 28980
28690 T7=S*(H+2*(50*D*10^-3))
28700 T10=T9*2.98
28710 TOP4=TOP4+T8
28720 PRINT "TOPLAM DONATI METRAJI=";TOP4 ; "kg"; " ""FI20"
28730 INPUT "(1) devam (2) son",X
28740 IF X=2 THEN GOTO 28760
28750 NEXT J
28760 LPRINT CHR$(14); " ""***KOLON DONATI METRAJI***"
28770 LPRINT "TOPLAM ETRIYE METRAJI=";TOPETR ; "kg"; " ""FI8"
28780 LPRINT "TOPLAM DONATI METRAJI=";TOP1 ; "kg"; " ""FI14"
28790 LPRINT "TOPLAM DONATI METRAJI=";TOP2 ; "kg"; " ""FI16"
28800 LPRINT "TOPLAM DONATI METRAJI=";TOP3 ; "kg"; " ""FI18"
28810 LPRINT "TOPLAM DONATI METRAJI=";TOP4 ; "kg"; " ""FI20"
28820 LPRINT "TOPLAM DONATI METRAJI=";TOP5 ; "kg"; " ""FI22"
28830 GOTO 28980
28840 T9=S*(H+2*(50*D*10^-3))
28850 TOP5=TOP5+T10
28860 PRINT "TOPLAM DONATI METRAJI=";TOP5 ; "kg"; " ""FI22"
28870 INPUT "(1) devam (2) son",X
28880 IF X=2 THEN GOTO 28900
28890 NEXT I
28900 LPRINT CHR$(14); " ""***KOLON DONATI METRAJI***"
28910 LPRINT "TOPLAM ETRIYE METRAJI=";TOPETR ; "kg"; " ""FI8"
28920 LPRINT "TOPLAM DONATI METRAJI=";TOP1 ; "kg"; " ""FI14"
28930 LPRINT "TOPLAM DONATI METRAJI=";TOP2 ; "kg"; " ""FI16"
28940 LPRINT "TOPLAM DONATI METRAJI=";TOP3 ; "kg"; " ""FI18"
28950 LPRINT "TOPLAM DONATI METRAJI=";TOP4 ; "kg"; " ""FI20"
28960 LPRINT "TOPLAM DONATI METRAJI=";TOP5 ; "kg"; " ""FI22"
28970 GOTO 28980
28980 END

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29000 CLS
29010 REM TEKIL TEMEL DONATI METRAJI
29020 LOCATE 2,2:PRINT "TEKIL TEMEL TIP SAYISI=":LOCATE 2,25:INPUT " ",N
29030 FOR I=1 TO N
29040 FOR J=1 TO N
29050 FOR K=1 TO N
29060 INPUT "TEMEL UZUN KENARI(m)=",LU
29070 INPUT "TEMEL KISA KENARI(m)=",LK
29080 INPUT "UZUN YONDEKI DONATI ADEDI=",D1
29090 INPUT "KISA YONDEKI DONATI ADEDI=",D2
29100 INPUT "DONATI CAPI(mm)=",D
29110 IF D=12 THEN GOTO 29140 ELSE 29120
29120 IF D=14 THEN GOTO 29260 ELSE 29130
29130 IF D=16 THEN GOTO 29380 ELSE 29500
29140 T1=(D1*LU+D2*LK)+2*(20+D)*10^-2
29150 T2=T1*.888
29160 T3=T3+T2
29170 PRINT "TEKIL TEMELDEKI 12'lik DEMIR METRAJI=";T3;"kg";" ""FI12"" ""(1temel
deki)"
29180 INPUT "(1) devam (2) son",X
29190 IF X=2 THEN GOTO 29210
29200 NEXT K
29210 LPRINT CHR$(14);" ""***TEKIL TEMEL DEMIR METRAJI***"
29220 LPRINT "TEKIL TEMELDEKI 12'lik DEMIR METRAJI=";T3;"kg";" ""FI12"" ""(1teme
ldeki)"
29230 LPRINT "TEKIL TEMELDEKI 14'luk DEMIR METRAJI=";T6;"kg";" ""FI14"" ""(1teme
ldeki)"
29240 LPRINT "TEKIL TEMELDEKI 16'lik DEMIR METRAJI=";T9;"kg";" ""FI16"" ""(1teme
ldeki)"
29250 GOTO 29500
29260 T4=(D1*LU+D2*LK)+2*(20+D)*10^-2
29270 T5=T4*1.21
29280 T6=T6+T5
29290 PRINT "TEKIL TEMELDEKI 14'luk DEMIR METRAJI=";T6;"kg";" ""FI14"" ""(1temel
deki)"
29300 INPUT "(1) devam (2) son",X
29310 IF X=2 THEN GOTO 29330
29320 NEXT J
29330 LPRINT CHR$(14);" ""***TEKIL TEMEL DEMIR METRAJI***"
29340 LPRINT "TEKIL TEMELDEKI 12'lik DEMIR METRAJI=";T3;"kg";" ""FI12"" ""(1teme
ldeki)"
29350 LPRINT "TEKIL TEMELDEKI 14'luk DEMIR METRAJI=";T6;"kg";" ""FI14"" ""(1teme
ldeki)"
29360 LPRINT "TEKIL TEMELDEKI 16'lik DEMIR METRAJI=";T9;"kg";" ""FI16"" ""(1teme
ldeki)"
29370 GOTO 29500
29380 T7=(D1*LU+D2*LK)+2*(20+D)*10^-2
29390 T8=T7*2
29400 T9=T9+T8
29410 PRINT "TEKIL TEMELDEKI 16'lik DEMIR METRAJI=";T9;"kg";" ""FI16"" ""(1temel
deki)"
29420 INPUT "(1) devam (2) son",X
29430 IF X=2 THEN GOTO 29450
29440 NEXT I

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29450 LPRINT CHR$(14);"      ""***TEKIL TEMEL DEMIR METRAJI***"
29460 LPRINT "TEKIL TEMELDEKI 12'lik DEMIR METRAJI=";T3;"kg";" "FI12"" "(iteme
ldeki)"
29470 LPRINT "TEKIL TEMELDEKI 14'luk DEMIR METRAJI=";T6;"kg";" "FI14"" "(iteme
ldeki)"
29480 LPRINT "TEKIL TEMELDEKI 16'lik DEMIR METRAJI=";T9;"kg";" "FI16"" "(iteme
ldeki)"
29490 GOTO 29500
29500 END

30000 REM KIRIS VE MUT.TEMEL DONATI METRAJI
30010 KEY OFF
30020 CLS
30030 PRINT"=====
="
30040 PRINT"                                MENU"
30050 INPUT "D=",D
30060 IF D=0 THEN GOTO 30760
30070 IF D=10 GOTO 30130 ELSE 30080
30080 IF D=12 GOTO 30230 ELSE 30090
30090 IF D=14 GOTO 30330 ELSE 30100
30100 IF D=16 GOTO 30430 ELSE 30110
30110 IF D=18 GOTO 30530 ELSE 30120
30120 IF D=20 GOTO 30630 ELSE 30130
30130 CLS
30140 FOR L=1 TO 10
30150 C=2+L
30160 LOCATE 1,22:PRINT"UZUNLUK";LOCATE 1,40:PRINT"ADET";LOCATE 1,60:PRINT"TOPLA
M(kg)"
30170 LOCATE C,5 :PRINT L"DONATI";LOCATE C,25:INPUT " ",L(L);LOCATE E,40:INPUT"
",S
30180 C(L)=L(L)*.01*S*.617;LOCATE C,60:PRINT C(L)
30190 CT1=CT1+C(L)
30200 IF C(L)=0 THEN LOCATE C,60:PRINT"-----";LOCATE (E+1),60:PRINT ET1
30210 IF L(L)=0 THEN GOTO 30050
30220 NEXT L
30230 CLS
30240 FOR L=1 TO 10
30250 C=2+L
30260 LOCATE 1,22:PRINT"UZUNLUK";LOCATE 1,40:PRINT"ADET";LOCATE 1,60:PRINT"TOPLA
M(kg)"
30270 LOCATE C,5 :PRINT L"DONATI";LOCATE C,25:INPUT " ",L(L);LOCATE E,40:INPUT"
",S
30280 C(L)=L(L)*.01*S*.888;LOCATE C,60:PRINT C(L)
30290 CT2=CT2+C(L)
30300 IF C(L)=0 THEN LOCATE C,60:PRINT"-----";LOCATE (E+1),60:PRINT ET2
30310 IF L(L)=0 THEN GOTO 30050
30320 NEXT L
30330 CLS
30340 FOR L=1 TO 10
30350 C=2+L
30360 LOCATE 1,22:PRINT"UZUNLUK";LOCATE 1,40:PRINT"ADET";LOCATE 1,60:PRINT"TOPLA
M(kg)"
30370 LOCATE C,5 :PRINT L"DONATI";LOCATE C,25:INPUT " ",L(L);LOCATE E,40:INPUT"
",S

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30380 C(L)=L(L)*.01*S*1.208:LOCATE C,60:PRINT C(L)
30390 CT3=CT3+C(L)
30400 IF C(L)=0 THEN LOCATE C,60:PRINT"-----":LOCATE (C+1),60:PRINT CT3
30410 IF L(L)=0 THEN GOTO 30050
30420 NEXT L
30430 CLS
30440 FOR L=1 TO 10
30450 C=2+L
30460 LOCATE 1,22:PRINT"UZUNLUK":LOCATE 1,40:PRINT"ADET":LOCATE 1,60:PRINT"TOPLA
M(kg)"
30470 LOCATE C,5 :PRINT L"DONATI":LOCATE C,25:INPUT " ",L(L):LOCATE C,40:INPUT"
,S
30480 C(L)=L(L)*.01*S*1.58:LOCATE C,60:PRINT C(L)
30490 CT4=CT4+C(L)
30500 IF C(L)=0 THEN LOCATE C,60:PRINT"-----":LOCATE (C+1),60:PRINT CT4
30510 IF L(L)=0 THEN GOTO 30050
30520 NEXT L
30530 CLS
30540 FOR L=1 TO 10
30550 C=2+L
30560 LOCATE 1,22:PRINT"UZUNLUK":LOCATE 1,40:PRINT"ADET":LOCATE 1,60:PRINT"TOPLA
M(kg)"
30570 LOCATE C,5 :PRINT L"DONATI":LOCATE C,25:INPUT " ",L(L):LOCATE C,40:INPUT"
,S
30580 C(L)=L(L)*.01*S*2!:LOCATE C,60:PRINT C(L)
30590 CT5=CT5+C(L)
30600 IF C(L)=0 THEN LOCATE C,60:PRINT"-----":LOCATE (C+1),60:PRINT CT5
30610 IF L(L)=0 THEN GOTO 30050
30620 NEXT L
30630 CLS
30640 FOR L=1 TO 10
30650 C=2+L
30660 LOCATE 1,22:PRINT"UZUNLUK":LOCATE 1,40:PRINT"ADET":LOCATE 1,60:PRINT"TOPLA
M(kg)"
30670 LOCATE C,5 :PRINT L"DONATI":LOCATE C,25:INPUT " ",L(L):LOCATE C,40:INPUT"
,S
30680 C(L)=L(L)*.01*S*2.47:LOCATE C,60:PRINT C(L)
30690 CT6=CT6+C(L)
30700 IF C(L)=0 THEN LOCATE C,60:PRINT"-----":LOCATE (C+1),60:PRINT CT6
30710 IF L(L)=0 THEN GOTO 30050
30720 NEXT L
30730 LOCATE 12,18:PRINT"FI 18'lik"" "CT5
30740 LOCATE 13,18:PRINT"FI 20'lik"" "CT6
30750 REM KIRIS HESABI
30760 LOCATE 14,2:PRINT "KIRIS ACIKLIK SAYISI = ":LOCATE 14,23:INPUT " ",N
30770 LOCATE 15,19:PRINT"L UZ. (cm)":LOCATE 15,32:PRINT"ETR.ARA. (cm)":LOCATE 15,4
7:PRINT "ETR.BOY(cm)":LOCATE 15,61:PRINT "KIR. YUK. (cm)"
:LOCATE 15,77:PRINT "FI"
30780 FOR L=1 TO N
30790 C=15+L
30800 LOCATE C,1:PRINT L"ACIKLIK":LOCATE C,4:LOCATE C,13:PRINT"L*L
30810 LOCATE C,19:INPUT" ",L(L):LOCATE C,32:INPUT" ".T :LOCATE C,47:INPUT " ",K:L
OCATE C,61:INPUT " ",M :LOCATE C,76:INPUT " ",FI
30820 IF FI=8 THEN W=.395:GOTO 30850
30830 IF FI=10 THEN W=.617:GOTO 30860
30840 IF FI=12 THEN W=.888:GOTO 30870

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30850 T(L)=((L(L)+4*M)/T)*W*K*.01:T1=T1+T(L):GOTO 30880
30860 T(L)=((L(L)+4*M)/T)*W*K*.01:T2=T2+T(L):GOTO 30880
30870 T(L)=((L(L)+4*M)/T)*W*K*.01:T3=T3+T(L):GOTO 30880
30880 NEXT L
30890 LOCATE 25,50:PRINT"Yaziciya Aktaracakmisiniz(E/H)":LOCATE 25,78:INPUT A$
30900 IF A$=VAL (E) THEN GOTO 2000
30910 GOTO 30920
30920 CLS
30930 LOCATE 5,10:PRINT"-----"
30940 LOCATE 6,15:PRINT"                DONATI METRAJI"
30950 LOCATE 7,10:PRINT"-----"
30960 LOCATE 8,18:PRINT"FI 10'luk""  "CT1 "kg"
30970 LOCATE 9,18:PRINT"FI 12'lik""  "CT2 "kg"
30980 LOCATE 10,18:PRINT"FI 14'luk""  "CT3 "kg"
30990 LOCATE 11,18:PRINT"FI 16'lik""  "CT4 "kg"
31000 LOCATE 12,18:PRINT"FI 18'lik""  "CT5 "kg"
31010 LOCATE 13,18:PRINT"FI 20'lik""  "CT6 "kg"
31020 LOCATE 14,10:PRINT"-----"
31030 LOCATE 15,16:PRINT"                ETRIYE"
31040 LOCATE 16,10:PRINT"-----"
31050 LOCATE 17,19:PRINT"8 LİK ETRIYE : "T1"kg"
31060 LOCATE 18,18:PRINT"10 LUK ETRIYE : "T2"kg"
31070 LOCATE 19,18:PRINT"12 LİK ETRIYE : "T3"kg"

```

*** UYGULAMA ***

===== METRAJ GİRİSİ =====

SIRA NO : 3

POZ.NO :16.004

YAPILACAK ISIN ADI,CINSI ve YERI :DOSEME

300 DOZLU DEMIRSIZ DOSEME BETONU

DOSEME ADEDI : 3

===== METRAJ HESABI =====

ENI.....:4

BOYU.....:3.5

YUKSEKLIGI.....:12

BIRIMI.....:m^3

BEHER MIKTARI.....: 1.68

BENZER ADEDI.....5

TOPLAM MIKTARI..... 8.399999

DOSEME BETON TOPLAMI : 15.12 m^3

KIRIS	DONATI METRAJI	%%&	KIRIS ETRIYE METRAJI
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FI 10' luk	0 kg		FI 8' lik	18.2016 kg
FI 12' lik	2006.88 kg		FI 10' luk	30.20832 kg
FI 14' luk	10872 kg		FI 12' lik	43.47648 kg
FI 16' lik	4424 kg			
FI 18' lik	4800 kg			
FI 20' lik	3705 kg			

*****DOSEME DEMİR METRAJI*****

DOSEMEDEKI 8'lik DONATI METRAJI= 90.41111 Kg F18 (1 KATTAKI)
DOSEMEDEKI 10' luk DONATI METRAJI= 0 Kg F110 (1 KATTAKI)
DOSEMEDEKI 12'lik DONATI METRAJI= 1177.869 Kg F112 (1 KATTAKI)

*****KOLON DONATI METRAJI*****

TOPLAM ETRIYE METRAJI= 60.89507 kg F18
TOPLAM DONATI METRAJI= 59.29 kg F114
TOPLAM DONATI METRAJI= 80.58 kg F116
TOPLAM DONATI METRAJI= 106 kg F118
TOPLAM DONATI METRAJI= 0 kg F120
TOPLAM DONATI METRAJI= 0 kg F122

*****TEKİL TEMEL DEMİR METRAJI*****

TEKİL TEMELDEKI 12'lik DEMİR METRAJI= 0 kg F112 (1temeldeki)
TEKİL TEMELDEKI 14' luk DEMİR METRAJI= 131.5028 kg F114 (1temeldeki)
TEKİL TEMELDEKI 16'lik DEMİR METRAJI= 181.44 kg F116 (1temeldeki)

MALİYET TABLOSU

SIRA NO : 4

POZ.NO : 16.004

YAPILACAK ISIN ADI,CINSI ve YERI :

YAPIDAKI 300 DOZLU BETON MALİYETİ

MALİYET HESABI

BEHER MIKTARI.....:15.12

BENZER ADEDİ.....:5

TOPLAM MIKTARI.....: 75.6

BİRİMİ.....:m³

BİRİM FİYATI.....:39951

BEHER TUTARI..... 604,059.10

TOPLAM MALİYET..... 3,020,296.00

ANALİZ TALOSU

POZ NO : 16.004

SAYFA NO : 1

ISIN ADI : X

POZ.NO	MIKTAR	RAYIC	TUTARI	KARSIZ F.	KARLI FIAT	TOPLAM FIAT
16.004	75.6	39951	3020296	74028209.04833850.00		DM= 1052
16.002/1	15	27161	407415			DM 4594.91
16.002	18	33361	600498			\$= 2102
						\$ 2299.64

BİRİM FİYATI (TL/M3) 4833850 .- TL

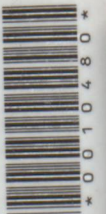


KAYNAKLAR

- 1* Birim Fiyat Analizi (Tubitak Bilimsel Arastirma Kurumu)
- 2* TS 500 (Betonarme Sartnamesi)
- 3* TS 498(Yuk Sartnamesi)
- 4* Afet Bolgesinde Yapilacak Yapilara ait Yonetmelik.
- 5* Loser
- 6* Betonarme Insaat Hesaplari (T.Nedim Ulug)
- 7* Betonarme Yapi Elamanlari (Aka Keskinel Arda)
- 8* Tek ve iki istikametteki Kolonlari Hesabi icin tablolar
- 9* Cubuklar, Plaklar ve Kabuk sistemlerin hesap tablolari
- 10* Yapi Statigi (Adnan Cakiroglu)
- 11* Deprem Arastirma bultenler
- 12* Beton Kalender
- 13* Betonarme Yapilari (Prof. Dr. Huseyin Celasun)

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Yeo, Prof. Bill, *Private Justice*



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